

The Tule Goose...

Solving the Mystery

by Bob Elgas
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with
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Of all of the world's geese perhaps the least known has been the tule goose. This bird, a large representative of the white-fronted goose family, was first described in 1852 by Hartlaub from specimens taken in Texas. At that time Hartlaub recognized that two distinct forms of white-fronted geese existed in Texas — a pale colored race, abundant in number, and a larger and darker form substantially less common. Hartlaub referred to the more abundant form as the Pacific white-fronted goose, *Anser albifrons frontalis*, and the larger birds as tule geese, *Anser albifrons gambeli*.

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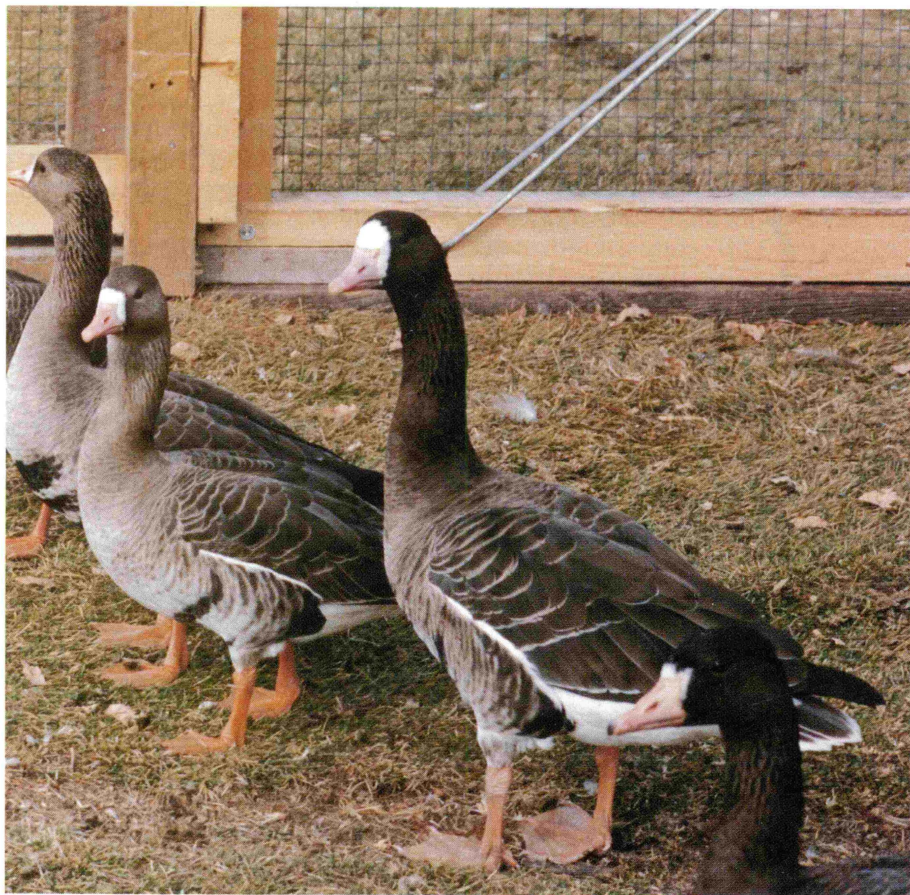


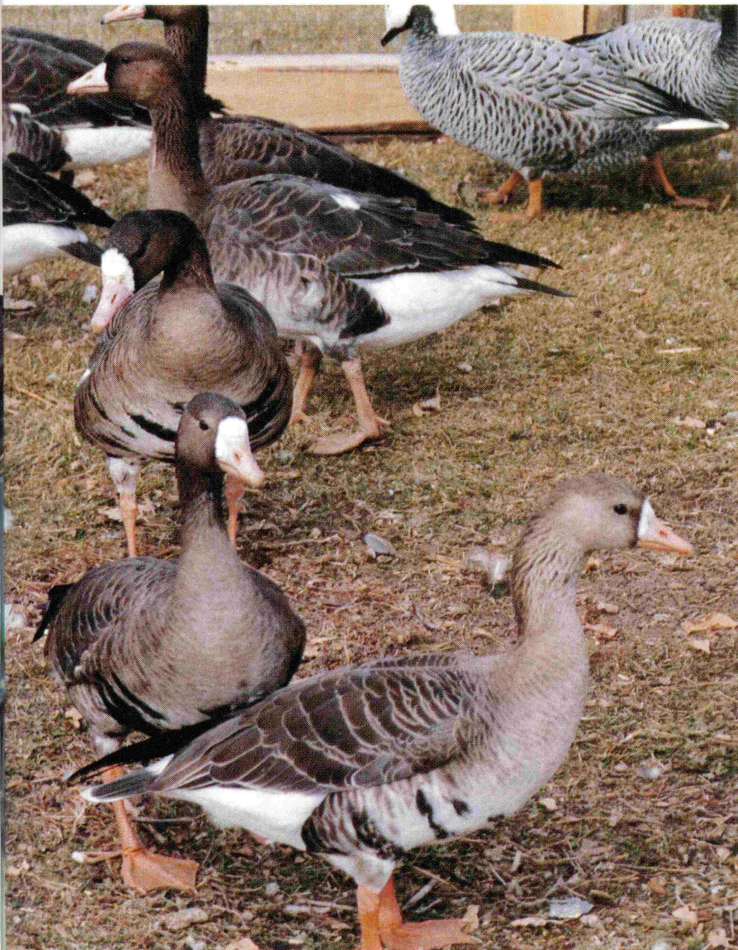
Photo taken at Elgas sanctuary in Montana, and depicts two tule white-fronts, right foreground, and two Pacific white-fronts left side of photo. Clearly indicated is the elongate structure of the tule goose and the more compact shape of the Pacific white-fronts. Also well indicated is the brown color of tule geese and the greyish color of Pacific white-fronts.



Photo taken at Sacramento National Wildlife Refuge 1974. Elgas holding radio equipped tule goose prior to release. The radio is to enable biologist to track bird's movements. Such radio equipment causes the birds no discomfort. It is of interest that when preening the birds preen the antenna as though it was one of their own feathers. Note the dark brown color characteristic of tule geese.

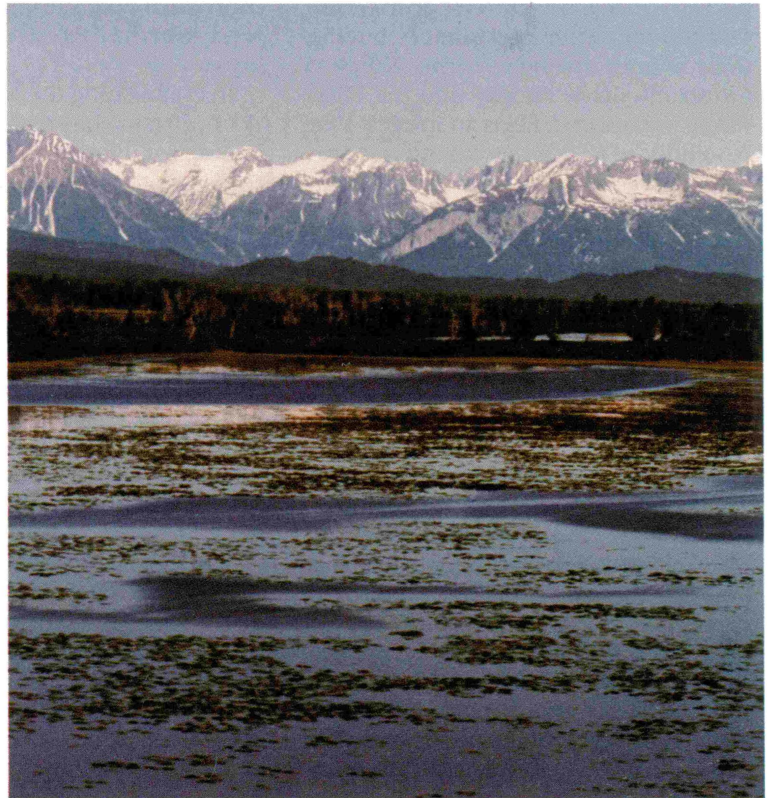


DISCOVERY! This photo was taken on the third day of July, 1979. The locale is Big River, just inland from where the river empties into Cook Inlet in southern Alaska. It clearly depicts breeding tule geese with goslings. A moment of triumph!



*Photo taken at Elgas sanctuary, Big Timber, Montana. Bird in immediate foreground is adult Pacific white-fronted goose, *Anser albifrons frontalis*. Pair of Emperor geese, rear background. Others tule white-fronted geese, *A.a. elgasi*.*

Breeding area of tule geese. An overflow of Big River looking inland toward the mountains. This overflow, about 6 miles inland from Cook Inlet, is an area much favored by tule geese. Breeding pairs with broods are frequently seen on this particular area.



The Tule Goose — Solving the Mystery

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About the turn of the century it was discovered that big, dark, white-fronted geese existed in the interior valley areas of California. Although differences seemed to exist between the Texas and California birds, both forms were grouped together as tule geese, *Anser albifrons gambeli*.

Early in this century numerous observations of the California birds were made by James Moffitt. Most of Moffitt's observations were from birds collected in the Butte Sink area of the Sacramento Valley. Moffitt's untimely death ended his efforts and, unfortunately, no one continued his work. Subsequent to Moffitt's studies little additional information was recorded. Ultimately tule geese became something of a mystery, and many wildlife specialists doubted their existence. The aura of mystery continued, and only recently have discoveries been made which have resolved much of that mystery.

For many years Bob Elgas, an aviculturist from Montana, has been involved in the keeping and rearing of wild geese. About 1960, and quite by accident, he came into possession of an adult male tule goose. The bird had been acquired by personnel of the Oregon Game Department after presumably having been injured during a storm. The bird ultimately made its way into the Elgas flock, initiating in Elgas an interest that has endured to this day, an interest that has resolved much of the mystery that has enshrouded the tule goose.

The differences between the Pacific white-fronted goose and the tule white-fronted goose are substantial. The Pacific white-front, which enjoys wide distribution throughout the western United States, is a medium sized goose in which the general color pattern is brownish grey. In adult plumage all white-fronted geese are characterized by irregular black splotching on the underside, and are frequently known by the vernacular name of "speckle-belly." It is noteworthy that juveniles in their first year lack the black breast markings of the adults. The correct name, white-fronted goose, originates with the ring of white feathers surrounding the base of the bill. Tule white-fronted geese are similar in plumage to their smaller cousins, but the greyish color is

replaced by a rich tone of brown. The head and neck in particular are much darker. The tule goose is also a larger bird, and the physical structure is much more elongate. The wings are proportionately large, a characteristic which is especially noticeable when the birds are in flight. As an overwintering species Pacific white-fronts are relatively abundant and are widely distributed throughout the western United States. The tule goose, however, is restricted to areas of the central valley of California, with a population only a fraction that of the common form.

The arrival of the tule goose from Oregon initiated a desire for further information which resulted in a flow of correspondence between Elgas and other wildlife specialists. It soon became obvious that little information was available, and, indeed, many within professional circles questioned the birds' very existence. On rare occasions when one of the big geese came to the attention of wildlife specialists they frequently expressed the opinion that despite the very different appearance, the bird in question was not representative of a valid race, but was an atypical individual taken from a flock of otherwise normal Pacific white-fronted geese.

In establishing the validity of a race it is important that the breeding ground be known. Elgas was familiar with big, dark white-fronted geese seen occasionally during migration in the western portion of the province of Saskatchewan. He reasoned that birds migrating through that area could be expected to have originated somewhere eastward of the mountainous barrier of Alaska. The MacKenzie River Delta area of the Northwest Territories seemed the most logical place to expect to find the big birds. Regarding their breeding areas, wild geese are categorized into two general groups — those that are known as tundra nesting species, which utilize the open coastal tundras of the arctic, and those that are known as forest dwelling species, usually the larger varieties, which choose more inland breeding areas that are more heavily vegetated. Available information indicated that tule geese could be expected to fall within the latter category.

After having evaluated considerable material Elgas decided that a search of the MacKenzie Delta area was worthwhile. In 1964, Bob Elgas and Jack Kiracofe, an experienced waterfowl aviculturist from Pennsylvania, with their respective wives, formed the Elgas-Kiracofe expedition. The expedition was partially funded by the International Council for Bird Preservation, and World Wildlife Fund, and was made possible by the effort of Dr. S. Dillon Ripley, Secretary of the Smithsonian Institution. Elgas and Kiracofe searched the area extensively. In the southwest portion of Old Crow Flats in the Yukon Territory a breeding population of large, dark white-fronted geese was found. A number of birds, both adult and downy young, were captured and returned to the United States for evaluation. Additionally, some fifty adult birds were captured, banded with U.S. Fish & Wildlife Service bands, and released. The banded birds would be of utmost importance in determining exact wintering areas.

The live birds which were returned to the United States were evaluated by personnel of the U.S. Fish & Wildlife Service. As a result of that evaluation it was determined that indeed the birds from Old Crow Flats did answer Hartlaub's description, and they were identified as tule geese, *Anser albifrons gambeli*. Initial evaluations were made before band recoveries were returned. Ultimate band recoveries came as a great surprise in that the recoveries came not from California, as was anticipated, but from Texas and Northern Mexico. This was altogether unexpected and resulted in re-evaluation of criteria. It was then determined that the birds discovered by Elgas and Kiracofe were actually the Texas race, as described by Hartlaub in 1852, leaving the California birds as an essentially undescribed form.

Ultimately Elgas became convinced that the California birds were distinct from other forms of white-fronted geese, and if such were to be proven it would be necessary to study the birds in California. It was his opinion that an appropriate place for such an effort would be the Sacramento National Wildlife Refuge, which was adjacent to Butte Sink where Moffitt had worked



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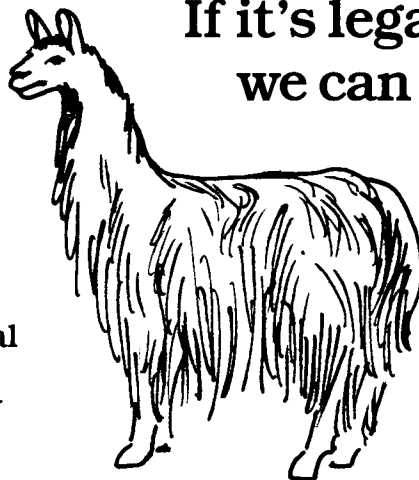
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earlier. An agreement was entered into between Elgas and the U.S. Fish & Wildlife Service granting him permission to work with Service personnel in an effort to determine the status of tule geese in California. This effort was initiated in 1970, and continued for a number of years. Most of the work was conducted during the months of November and December, since that was the time when geese were most abundant at Sacramento Refuge. Personnel of the Fish & Wildlife Service, especially Ed Collins, Refuge Manager, and Richard Bauer, staff biologist, were instrumental in the ultimate success of the venture.

One of the principal goals was to capture live tule geese for evaluation. It is usually not difficult to trap wild geese, and wildlife agency personnel frequently do so by utilizing cannon nets. As the name implies, these are large nets propelled by projectiles fired from cannons. In capturing geese an appropriate area is selected, then baited with food. The net, or nets, are set and prepared for firing. When the birds are in the entrapment area the cannon are fired, propelling the net over the birds. Pacific white-fronts have been taken by this method frequently. Tule geese, however, proved quite a different matter.

During autumn, Pacific white-fronts are abundant at Sacramento Refuge. Tule geese are also in residence, but in substantially fewer numbers. Interestingly there appeared to be very little intermix between the two races. Pacific white-fronts inhabited the more open areas of the western portion of the refuge, whereas tule geese preferred the easternmost portion. The eastern part was characterized by much heavier vegetation, where water impoundments had substantial emergent growth of tule rushes, the tubers of which appeared to form an important source of food for tule geese. Pacific white-fronts, on the other hand, preferred rice fields and open grasslands as feeding areas.

Because of feeding habits tule geese proved difficult to capture. Numerous efforts at capture were made, but all proved unsuccessful. It was not until 1972 that birds were ultimately captured. A flock of tule geese was found to have chosen a small pond as a resting area. The pond was well baited with rice and millet and two nets were set. The nets were positioned to cover the pond when discharged. Once ready it was a matter of waiting the return of the geese. On the eleventh day of November, just at dusk, the geese came. It was a

tense and exciting moment. As they alighted on the pond it was realized that the success of this effort could result in the first live capture of this race of tule geese and, more importantly, could be instrumental in proving their actual existence.

At last, after so many disappointments, the moment of opportunity was at hand. The geese were properly positioned — the nets were fired. Discharging the cannon can be spectacular. In the semi-darkness of early evening the flash from eight cannons was blinding. It was moments until anxious eyes could adjust, and then, joy of joys! a number of dark forms could be seen trapped beneath the meshes of the nets. It was not possible to evaluate them in the darkness. It took considerable effort to extract them from the nets and get them safely into carrying containers. The birds were taken to refuge headquarters where in one of the buildings a holding pen had been prepared. Once in the pen an evaluation was possible. Six in number — a modest catch, but of inestimable value. Each bird was large and dark, exhibiting the typical elongate structure. Tule white-fronted geese, the first live specimens ever taken — a beautiful sight indeed!

In conjunction with field observations, evaluation of these geese, as well as that of others captured later, provided evidence that was sufficiently convincing that the existence of the California race of tule geese was accepted. In 1975, in a publication released by the American Museum of Natural History, Dr. Jean Delacour and Dr. S. Dillon Ripley made a descriptive diagnosis of the birds as a distinct sub-species with wintering grounds in California and breeding grounds as yet unknown. The sub-species was named *Anser albifrons elgasi*, tule white-fronted goose. Delacour and Ripley chose the name *elgasi* in recognition of efforts by Elgas in having proven the validity of the race. The California birds then became the tule white-fronted goose, *Anser albifrons elgasi*, and the Texas race remained *Anser albifrons gambeli*, and was named Gambel's white-fronted goose.

Although the validity of the California birds had been finally established, there was still the matter of the unknown breeding grounds. Elgas had remained keenly interested in this, and continued to search for information. He became convinced that the breeding grounds of the California birds would ultimately be found somewhere in southern Alaska. Late in 1978 Elgas

received information indicating a breeding population of white-fronted geese, answering the description of tule geese, were located in the Cook Inlet area of Alaska. He acquired photographs of the geese which led him to believe field observation of the area and the birds was warranted. In cooperation with Warren Hancock, a fellow Montana aviculturist, such an expedition was arranged.

Elgas and Hancock went to Alaska for the specific purpose of trying to locate the tule goose breeding grounds. On the third day of July, 1979, Elgas and Hancock made the long sought discovery, when on the lower reaches of Big River, on the northwest shore of Cook Inlet, they discovered substantial numbers of tule geese, breeding birds — adults with downy young. Several separate flocks were seen. The birds were carefully evaluated, both from the air and from the ground, and a series of very revealing photographs were taken. There could be no mistake — the breeding grounds had at last been found.

Upon return to Montana, Elgas reported the discovery to the U.S. Fish & Wildlife Service in Washington, and the Alaska Department of Fish & Game in Juneau. It was then arranged that Elgas and Hancock return to Alaska. They were issued permits authorizing capture of live downy young tule geese for further evaluation. Three weeks after the original discovery, Elgas and Hancock revisited the area. At the request of the Alaska Department of Fish & Game they took Mr. Dan Timm, a representative of the Department, to show him the discovery that had been made some three weeks earlier. During this visit young tule geese were captured and returned to Montana for further study.

The discovery of the breeding grounds was the last major portion of a puzzle that for more than a hundred years had enshrouded in mystery the existence of tule geese. As a result of one man's interest, and his years of dedicated effort, the California race of tule white-fronted geese not only had been validated, but the discovery of the breeding grounds had been accomplished. Because of his efforts, protective wildlife agencies are now able to enact appropriate management programs. In twenty-five years the tule goose has been elevated from a position of virtual obscurity, one in which their very existence was questioned, to one of complete acceptance. There is every reason to believe the future of the tule white-fronted goose is secure. ●