

# THE PRESENT STATUS AND FUTURE OF NUTRIA IN THE SOUTHEAST STATES

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The native home of the nutria, coypu, or swamp beaver is the marshes, swamps and river margins of South America. In 1937, E. A. Mellhenny of Avery Island, Louisiana imported 6 pairs of these animals (*Myocastor coypus bonariensis*) from Argentina and placed them in large marsh inclosures where they increased rapidly. Two years later about a dozen dug out and escaped into the marsh. During the hurricane flood of August, 1940 another 150 were estimated as having been floated over the inclosure fences into the surrounding marsh areas. They evidently found conditions especially to their liking as they have thrived and multiplied in large numbers. Their dispersal and increase was so rapid that by the end of the 1945 - 46 trapping season they had extended their range westward as far as White's Rand, 15 miles west of Port Arthur, Texas and eastward as far as the west bank of the lower Mississippi River, necessitating the crossing of several broad stretches of water such as the Sebine River into Texas and the wide Atchafalaya River.

At this time a special Act of the 1946 session of the Legislature recognized the fact that nutria in the wild were here to stay and included them among the protected valuable fur-bearers of the State, placing a severance tax of 10 cents per pelt on each animal trapped.

In early September, 1940 the first nutria was observed on the Lacassine National Wildlife Refuge near Lake Arthur, La., some 65 miles away by water from Avery Island, the original point of escape, and when trapping was initiated during the 1945 - 46 season, 11 nutria were taken there. In January, 1947 a few nutria were found on the Delta National Wildlife Refuge near the mouth of the Mississippi River but this colony apparently hasn't survived, due most probably to floods and to too great a fluctuation in water conditions. The widespread system or network of interlocking canals, bayous and lakes, especially the Intercoastal Canal, undoubtedly aided this natural spread over that vast area.

## GROWTH AND IMPORTANCE OF THE NUTRIA INDUSTRY IN LOUISIANA

The spread and increase of nutria in the coastal marshes of southern Louisiana has been phenomenal. As the trappers have learned, through hard-earned experience, how to properly handle the pelts of this exotic animal and the necessity of taking them in prime condition, a wider demand has been created and better prices have been obtained.

The annual take of nutria in Louisiana, from the initial trapping season to the present is given in Table 1. It shows the remarkable rate of increase taking place and an estimated annual economic return to the marshowners and trappers of over three-quarters of a million dollars for the eight-year period.

Table 1. Annual nutria catch in Louisiana and pelt value, 1943 - 1951.

| Trapping Season | Number  | Average Price (\$) | Value (\$) |
|-----------------|---------|--------------------|------------|
| 1943 - 44       | 436     | .50                | 218.00     |
| 1944 - 45       | 902     | .50                | 451.00     |
| 1945 - 46       | 8,784   | 5.00               | 43,920.00  |
| 1946 - 47       | 18,015  | 3.00               | 54,045.00  |
| 1947 - 48       | 28,176  | 3.00               | 84,528.00  |
| 1948 - 49       | 26,738  | 3.50               | 93,583.00  |
| 1949 - 50       | 38,988  | 3.00               | 116,964.00 |
| 1950 - 51       | 78,422  | 4.65               | 364,662.30 |
| Totals          | 200,461 | 3.78               | 758,371.30 |

The greatest commercial production to date has been in the fresh water marshes of the coastal parishes of Cameron, Vermilion, Iberia and St. Mary. Probably the next large commercial development will be in the extensive fresh water marshes of the Terrebonne area where these animals have already been noted in small numbers. They are also spreading at a very rapid rate up the Atchafalaya river basin where they have already reached the Morganza area. This region can also support an almost unlimited nutria population.

#### NON-COMPETITION BETWEEN NUTRIA AND MUSKRATS

At the present time it appears that there is very little, if any, real competition between the nutria and the muskrat. They are compatible with each other and can live together in harmony but generally occupy two different types of marsh. Whereas muskrats apparently feed and thrive best on the finer marsh grasses such as the three-cornered grasses (*Scirpus olneyi* and *S. robustus*), the nutria seem to be more fond of coarser grasses. They also relish pickeral weed (*Pontederia lanceolata*), bull's tongue (*Sagittaria falcata*), arrowhead (*Sagittaria graminea*), and maidencane (*Panicum hemitomon*).

#### PREFERRED HABITATS

The nutria definitely prefers fresh water marshes and river and swamp margins to brackish or salt water marshes, with the reverse being true of the muskrat in the Gulf Coast section. Most of the nutria concentrations to date have been in the so-called deep water marshes, consisting mainly of giant cutgrass (*Zizaniopsis milicacea*), cattail (*Typha domingensis* and *T. latifolia*), bullwhip (*Scirpus californicus*) and sawgrass (*Cladium jamaicense*), and along the canals and bayous where alligator grass (*Alternanthera phyloxeroides*) occurs in abundance. More and more we are beginning to realize that nutria move around at times and graze along the ridges and higher spots in the marsh in much the same manner that cattle do. Although they dig loose and relish the roots of many aquatic plants, they are more of a top feeder than the muskrat in that respect.

#### FURTHER DISTRIBUTION AIDED BY MAN

The remarkable success of nutria in the Louisiana coastal country, the increasing value of the industry, and the favorable publicity given this animal in

the newspapers and conservation magazines soon aroused the interest of marsh-owners and trappers of other Gulf and southeastern states. Several of these articles stressed the fact that nutria can at times be efficient removers of unwanted pond vegetation, such as waterlily, cattail, giant cutgrass and arrowhead, all of which they are especially fond of. As a direct result, starting in 1947 - 48, numerous importations of these animals were made from Louisiana and released in ponds, pot-holes and lakes, widely scattered over Texas, through the efforts of sportsmen and fishing clubs. These releases haven't been altogether successful, however, in their purpose as "weed cutters deluxe." While the nutria are particularly fond of the cattail and quickly open up such areas they fail in many cases to clean up the dense aquatic growth satisfactorily. This is especially true of the water shield (*Brasenia schreberi*) which most often covers the water surface and which usually remained uneaten except during the later winter to April period. They feed on spatterdock (*Nymphaea advena*) only to a very limited extent. It appears, therefore, highly questionable as to what degree nutria may actually improve conditions for fishing.

The Alabama Department of Conservation was one of the earliest in the region to become interested in the possibilities of nutria. Through their biologist, Francis X. Lueth, they conducted experimental food studies with nutria in two large marsh inclosures from September, 1948 to March, 1949 at their conservation camp near Daphne, Alabama. One 90' × 100' inclosure consisted of cutgrass and alligator grass and the second, 100' × 100', contained *Spartina olneyi*, feather grass and *Phragmites communis*. These tests showed that the nutria were fond of Alligator grass, cane, cutgrass and three-square and that they would find much of the Mobile Bay Delta area suitable habitat. Upon termination of this project, presumably all the experimental animals remaining were pelleted out.

During the last few years a number of active dealers in live nutria for stocking purposes have operated on a rather extensive basis in Louisiana and Texas. Undoubtedly small shipments via truck have found their way into the various southeastern states and there seems little hope of tracing all of these. Our actual knowledge, therefore, as to the present day distribution of small nutria colonies throughout that region is extremely limited. It may be quite a number of years yet before their establishment and influence is felt. In 1949, 4 or 5 pairs of nutria were released by Olive Nunez of Abbeville, La., on a 4,000 acre marsh in Mississippi on the west side of Bay St. Louis. The following year 5 pairs were transplanted by Norris Broussard on a small marsh near Bay St. Louis.

In 1949, the U. S. Fish & Wildlife Service released a total of 7 male and 14 female nutria on March 17 in the fresh water pool areas on the Blackbeard Island Refuge off of the Savannah, Georgia coast in an experimental test to evaluate control of rank cattail growth and other objectionable marsh vegetation. The isolation of the area permits close supervision of the project without running any risk of introducing the nutria into agricultural areas on the mainland. Recent information shows that at least some of this stocking has survived despite the extremely heavy alligator population existing at the time of release.

#### LIKELY AREAS FOR ESTABLISHMENT IN THE SOUTHEAST STATES

Throughout the southeastern states there are many extensive areas that appear ideal as nutria habitat, especially at the headwaters and along the coastal tidal streams.

There is reason to believe that nutria may be able to survive under conditions that cause heavy loss to muskrats. As the young nutria are born fully clothed with hair, their eyes wide open, and can swim and eat a little shortly thereafter, they can better withstand spring freshets and flash floods than the helpless young muskrat. The terrific temperatures, drouth and salt water intrusion in central Louisiana during the past 3 summers, with a continued remarkable increase in nutria contrasted with a fall in the muskrat population to its lowest ebb, is ample proof that the nutria can also survive such conditions much better than the muskrat. This, however, may have possibly been due to some extent to the fact that muskrats suffer from periodical epizootics of a virulent disease which apparently does not affect the nutria.

Conditions look especially favorable for commercial nutria development along much of the North Carolina coast, especially the Currituck Sound area. There the hesitancy to introduce nutria is due to fear that it might affect adversely the valuable muskrat industry of that State.

In northwestern Florida there are some 885,000 acres of wet lands that might well support nutria and the vast area of sawgrass and other acceptable aquatic food in the Everglades offers untold possibilities. As muskrats have never been known to occur in that region, even that objection to the possible introduction of nutria is removed. In addition to the fur crop, the carcasses of this animal would also furnish an excellent meat supply for the Seminoles and the many trappers of that area.

Next to the Florida Everglades, the large expanse of the Mobile Bay Delta in Alabama offers perhaps the greatest possibilities for nutria as it contains practically all of the favorite food plants of this animal in abundance, including extensive growths of cutgrass and alligator weed.

Due to the great daily fluctuation in tide level which reaches as much as 7 feet at the Savannah National Wildlife Refuge, areas along most of the Georgia coast do not appear too promising for commercial development.

In Mississippi, there are millions of acres of low, wet, piney flatwoods that might possibly support quite a number of nutria in the aggregate but the most promising areas are along the Pearl River and the other tidal streams. While the nutria like the tender shoots and roots of many kinds of *Juncus*, it is questionable to what extent, if any, they will ever occupy the vast areas of needlegrass or black rush (*Juncus roemerianus*) that extend along the coast as this plant formation is usually highly brackish.

## PRESENT DEMAND AND FUTURE MARKET PROSPECTS

In spite of the doubling in the lake of nutria pelts during the 1951 trapping season in Louisiana the demand was very good and averaged \$4.65 per pelt, with prices for those of largest size and best quality reaching as much as \$7.50 each. These prices compare favorably with those paid in New York in previous years for the best, imported skins. The fact that the Argentine government placed a ban this year on the exportation of nutria skins from that county, as a conservation measure, may possibly have had some bearing on the better prices obtained, although it is thought that better and more standardized methods of handling and pelting these animals are largely responsible.

The pelage of an animal is one of the most sensitive indicators of health and condition and to the furrier means quality. The early belief that prevailed among

Louisiana trappers that nutria do not shed to any great extent and that one cannot tell when they are unprime is quite definitely a mistaken idea. This was probably due to the fact that the nutria pelt always darkens to a gray black when fully dried and greasy while in the case of the muskrat the dark, pigmented portions always indicate areas of unprimeness.

In the climate of Louisiana the nutria apparently sheds part of its coat during the early part of November. Throughout the first half of December these pelts remain in a flat, unprime condition and in some seasons this carries into January. As long as the small black-pigmented hairs can be observed through the thin, transparent skin, growing out of the follicle base, an unprime condition is present. In 1949, two-thirds of the entire nutria crop had been harvested and sold by Christmas at which time the pelts were still noticeably unprime. One can readily understand that if the marketing of large numbers of early "flat" and unprime skins is continued that the future demand for nutria can be radically curtailed. As nutria coats are considered in the luxury class, quality of pelt is of foremost consideration and must be maintained if the market demand is not to be ruined.

### CAUTIOUS LONG-TERM OUTLOOK NECESSARY

An analysis of the present nutria situation shows that there are a number of major factors responsible for the remarkable development of this new industry in our country: (1) The number of nutria skins available has been limited up to this point and the demand greater than the supply; (2) The favorable market has occurred during a period when the muskrat population was at one of its lowest levels; and (3) Increased popularity of nutria due to better methods of handling, extensive advertising and favorable publicity.

Up to the present time, the nutria hasn't proved to be much of a menace or threat. While they do use levees, dikes and ditchbanks to some extent for making burrows and dens, this type of minor damage is far less frequent and less elaborate than in the case of the muskrat. Some damage of this type and cutting in rice fields has been frequently reported from Louisiana.

In certain fresh water marsh areas, suitable for occupancy by both nutria and muskrats, a high degree of potential competition between these animals would seem to possibly exist. As nutria in comparison weigh approximately 5 to 10 times as much as a muskrat, one would naturally assume that the carrying capacity of such a marsh would be considerably less for nutria than for muskrats. Nutria, however, are more of a top grazer and less destructive to roots.

Improvements in treatment and dying of "plucked and sheared" raccoon and the increasing popularity of this article has placed it as a most serious threat to future demand for nutria. Although the cost of processing a nutria skin is approximately the same as that for raccoon, most of the pelt of the latter is utilized while only the small, longitudinal, soft-haired belly stripe of the nutria is usable for the finest garments.

The past three years have been rather tragic ones for the muskrat trapper in Louisiana and Texas. Terrific summer temperatures, prolonged drouth, salt water intrusion and disease have brought the muskrat population down to its lowest ebb in over 30 years. Instead of a normal of 12,000 to 15,000 trappers each season, only 7,000 to 8,000 engaged in marsh trapping the past year. During the same

period nutria continued to spread and increase and pelt prices reached an all-time high. Thanks to the nutria many trappers were able to support their families during these critical years.

However, in any attempt to envision or prophesy the future of nutria, the question naturally arises "What will happen when these animals increase into a figure of millions, as in the case of muskrats, and the market demand possibly slackens and prices fall too low to interest trappers, with the muskrat population again at higher levels?"

Most experienced trappers state that they much prefer to trap and handle muskrats than nutria as the skinning and handling of the latter is far more difficult and time-consuming. Old trappers who have handled many thousands of these animals are emphatic that they can skin 20 muskrats and stretch their pelts in the time required to handle a single nutria. In this connection it must be remembered that muskrat fur over a very long period of years has proved to be one of the mainstays of the fur industry, being constantly in big demand and usually bringing fair prices.

Should the price of nutria skins fall as low as fifty cents few trappers would bother with them, as is the present case with marsh raccoons. If vast areas of nutria marsh should remain untrapped, conceivably it would not be long before the overflow of the population might possibly seriously affect adversely adjoining plantings of rice, sugarcane or sweet potatoes in certain sections. In such a case, most damage would probably be suffered along the coastal strip of Texas and in southwestern Louisiana, areas already well stocked. From the standpoint of the southeastern states, little, if any, damage can be anticipated along this line.

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