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Nutria, Eating Louisiana's Coast

For more information, contact:
U.S. Geological Survey/National Wetlands Research Center,
700 Cajundome Blvd., Lafayette, LA 70506; 337-266-8500;
Fax: 337-266-8541; http://www.nwrc.usgs.gov

Nutria, a nonnative species from South America, have been able to thrive in the marshes and wetlands of Louisiana. They were introduced to many other states and currently have viable populations in 15.

"Eating-out" might be a term you associate with a pleasant experience, especially in south Louisiana where the food is good and the atmosphere is casual. Another kind of "eat-out" in Louisiana that is not so pleasant, though, is where nutria, large semiaquatic rodents introduced from South America, have literally eaten up the coastline.

Nutria live in fresh, intermediate, and brackish marshes and wetlands and feed on vegetation (herbivory) that is vital to sustaining the Louisiana coastline. Their "eat-outs" create openings in the marsh vegetation, and they are currently affecting an estimated 100,000 acres of coastal wetlands.

With Louisiana's coastal wetlands converting to open water at a rate of 25-35 square miles (65-91 square kilometers) each year, nutria are an additional burden to an already stressed ecosystem.

The nutria, or coypu (*Myocastor coypus*), was introduced into the United States in 1899 in California for the fur-farming industry. Since then, they have been introduced to many states and currently have viable populations in 15. Like many introductions of nonnative plants and animals, the introduction of nutria into the United States was intentional and originally viewed as a way to provide economic benefit.

Subsequent introductions as well as escapes from captivity resulted in feral populations. The population along the Gulf of Mexico coast, for example, reportedly originated in Louisiana around 1937, when nutria imported for fur farming escaped from captivity.

Nutria were also released into the Louisiana wild by state and federal agencies to provide a new fur resource and to control problem plants such as the water hyacinth (*Eichhornia crassipes*) and alligator weed (*Alternanthera philoxeroides*). Intentional and accidental introductions of nutria had an impact in Louisiana beyond what was originally realized; by the late 1950's there were an estimated 20 million nutria in coastal Louisiana.

Because of increasing damage to sugar cane and rice fields in the 1950's, the Louisiana legislature promoted fur harvest by offering a $0.25 bounty in 16 parishes (counties) for every nutria killed. To date, the best method of nutria control has been trapping and harvest, and approximately 95% of the nutria harvest in United States occurs in Louisiana.

Nutria "eat-outs," like the one here, create openings in the marsh vegetation that sustains the Louisiana coastline and are an additional burden for an already stressed ecosystem.

Since 1989, however, low pelt prices have decreased the harvest, thus increasing population levels. As with any harvest, management involves maintaining a delicate balance between supply and demand, and there are factors that are difficult to control or dictate, such as changing attitudes about wearing fur. Low demand, high reproductive rates, and low natural predation have enabled the nutria population to increase.

Other than annual fur harvesters, alligators are the only significant predator of nutria. Nutria are a prime food source for adult alligators; however, even in areas with an abundance of alligators, nutria can thrive if habitat conditions are suitable.

Nutria are extremely prolific, reaching sexual maturity at six months of age. With a gestation period of only 130 days, in one year, an adult nutria can produce two litters and be pregnant for a third. Litter size averages from four to five young, which are born fully furred with their eyes open. With this high productivity, nutria populations can withstand high predation rates and still cause significant wetland damage.

Because of the nutria's feeding habits, high population densities can be especially damaging to wetland vegetation and further wetland loss. Nutria predominately feed on the base of plant stems and dig for roots and rhizomes in the winter. Their grazing can strip large patches of marsh, and their digging overturns the marsh's upper peat layer. Plant growth can be reduced when grazing is intensive with little recovery time for the plants or when grazing is coupled with other sources of stress.

Moreover, nutria have contributed to the failure of several planting efforts of baldcypress, uprooting and eating as many as 500 newly planted seedlings literally overnight.

Nutria have been introduced to every continent except Antarctica and Australia. Not all countries view nutria as a pest. The perception of nutria as a pest largely depends upon the damage they impose as well as the fluctuating price of their pelt. In some countries, they are considered a prime resource and regarded highly for their pelt. In Azerbaijan, for example, breeders raise a pedigree group of nutria called Azerbaijan white coypus.

Nutria pelts drying on racks at Sabine National Wildlife Refuge.

Recent efforts to control nutria populations in Louisiana have been aimed at creating a market for human consumption of the meat as well as for fur. Nutria meat is healthy; it is higher in protein and carbohydrates, and lower in fat and cholesterol than most game and domestic animals.

Specific research of nutria at NWRC include:

- Studying the impacts of grazing nutria on vegetation in coastal wetlands, including plant responses.
- Using models to determine the effects of nutria on marsh loss.
- Testing the effectiveness of tree shelters in reducing nutria damage to planted seedlings.
- Studying plant responses to grazing herbivores.
- Studying changes in brackish marsh in areas of intense animal activity, including the effects of herbivory on soil elevation.
- Marking nutria to determine population estimates.

Nutria on grass mats.