




A Case Study of the Communication Themes for the Management of the Louisiana  
Nutria Population  
Senior Project


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By

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### Abstract

The scholarship on issues such as invasive species has, in the past, focused entirely on the development of management tactics and the scientific research of the environmental effects, but over the past few years, communication tactics for the implementation of proposed management strategies for the control of invasive species have begun to be studied. This case study examines the themes related to the articles published by traditional news sources in the state of Louisiana in connection with the invasive nutria. The study's results found many themes are commonly used across the different news sources that were covered, and that the popularity and circulation of a story depended on the relevance and relatability to the audience. The nutria is such a widespread issue in the state that many in-depth pieces that discuss elements of the problem and its history are picked up and circulated by several sources. Although the exchange and control of the conversation by the audience appears different in the traditional media sources used in this study versus social media, the stories are still written to the appeal of public attention.

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Nutria Population

**Introduction**

The nutria or coypu (*Myocastor coypus*) is a large semi-aquatic rodent native to South America that traders introduced to other parts of the world as a part of the fur industry (Carter & Leonard, 2002; Klima & Travis, 2012). The species is often misidentified as a beaver or a muskrat for its physical similarities, however, the nutria is larger than a muskrat but smaller than a beaver, weighing an average of 12 pounds, and has a narrow, rat-like tail that sticks out behind it as it swims (Linscombe & Kinler 1990). Nutria can breed multiple times each year and reach sexual maturity by six months (Linscombe & Kinler, 1990). In places like Louisiana, the species has been labeled a nuisance.

The nutria was introduced to California in the late 1890s as the first attempt to establish a population in the United States. Neither this attempt nor the first attempt in Louisiana was successful, as trappers quickly eradicated the species after introduction. Louisiana's second attempt was a success (Carter & Leonard, 2002). By the late 1930s Louisiana had firmly established the nutria as a part of the local ecosystem (Jojola, Witmer, & Burke, 2009; Carter & Leonard, 2002; Klima & Travis, 2012).

In the 1940s, during World War II, the ranching industry collapsed and any nutria that had not escaped captivity was released (Jojola, Witmer, & Burke, 2009; Carter & Leonard, 2002; Jarnevich, et al., 2017). At this point the nutria population exploded in the Louisiana wetlands but could be managed by trappers. Several

people observed their ability to consume the roots and reedy vegetation and marketed them as an exfoliant, and some state and federal agencies also intentionally released the animal for the same purposes (Carter & Leonard, 2002). Throughout this time, the fur trappers were still able to make a profit and to manage the population in the state, however in the 1980s, with the collapse of the fur industry, the incentive for this population control ceased (Carter & Leonard, 2002).

One of the biggest environmental problems Louisiana faces is coastal erosion, and although the nutria is not the only contributor to this loss of land, that is the problem for which the animal is known (McFalls, Keddy, Campbell, & Shaffer, 2010). In the past decade, this species has been included on lists ranking invasive or alien species by the impact they have on their environments (Balestrieri, et al., 2015). The nutria is known for its disruptive eating habits, known as “eat outs,” which destroy important wetland vegetation (Gabrey, Kinler & Elsey, 2009). This problem can be found around the world, and environmental researchers have chosen to study different aspects of the nutria population in Louisiana as a test case for different research techniques (Jarnevich, et al., 2017).

In recent years, there has been an increase in the amount of research available on how communication relates to the management of invasive species. While it is possible to look at the situation and analyze the scientific articles pertaining to invasive species, some research is shifting to an outreach and community education centered approach (Martin & MacDonald, 2020; Davis, et al., 2018). In the past, this type of outreach was stigmatized and was not considered a priority, but now, scientific research is utilizing communication theory and practices

to combat problems such as invasive species (Dalrymple, Shaw, & Brossard, 2013; Martin & MacDonald, 2020; Hart & Larson, 2014; Lucy, et al., 2016). Part of this change can be linked to the need for different scientific communities working together on global problems to share their research with each other, which involves changes in technology and acknowledging the social impacts of environmental problems (Lucy, et al., 2016). This shift also relates to the increase in research on citizen science, as it is often this community that implements the management strategies created by scientific researchers (Davis, et al., 2018; Lucy, et al., 2016).

Scholarship on modern media platforms such as Twitter and Instagram are now becoming available as well, and people are researching the effects of communicating with the public on these platforms (Davis, et al., 2018; Martin & MacDonald, 2020). A few examples of these studies include the use of Instagram to observe animal populations and the development of an app to crowdsource species identification and a study in Germany that focused on tweets about the oak processionary moth (Sullivan et al., 2019; Verma et al., 2015; Duame & Földner, 2016).

Ideally, social media is an interactive platform on which people are able to exchange ideas with a two-way flow of information, and it is possible to observe a target audience's reception and reaction to the information presented, as well as the people's contributions to the ongoing conversation. However, this case study focuses on the communication themes among the articles published on traditional news platforms regarding the management of the invasive species nutria in Louisiana. Newspapers and similar traditional media platforms still operate and

provide information to specific audiences in today's online world. With the trends in media consumption, these platforms have been able to adapt and continue to provide stories. Because this study attempted to understand the conversation in a small geographic region, in comparison to the spread of the species around the world, it was necessary to limit the sources to publications within that region. With these parameters, traditional sources offer an edge because they specifically serve smaller audiences by area. The strategies for measuring public response differ for this type of media as the content that is published contributes information in a manner that does not have the same direct two-way interaction between the sender and receiver. Although measuring and analyzing public response is possible, the aim of this project is not about who is engaging in the conversation but is about the cataloging and understanding of the themes presented with the information available for public knowledge.

## **Methods**

As the majority of the current research on the nutria population focuses on management strategies and scholarship in the natural sciences, the aim of this project was to analyze the public information and communication tactics from a mass communication perspective. The study is not a comprehensive analysis of every communication outlet that published information related to Louisiana's nutria population but surveyed common themes from traditional media such as newspapers.

To research the information published, the NewsBank database was used. Beginning the search, the keyword nutria was applied, which produced over 16,000

results. From there, the results were limited to articles published in North America, which was then narrowed to USA, which was then restricted to articles published in Louisiana. Nutria have been introduced to many different countries on many different continents, but in the United States, the environmental effects of nutria are most prominent in Louisiana. The span of time measured was from 2015 to 2020, and publication sources were limited to college/university newspapers, journals, newspapers, and newswire. This narrowed the results to 1,068 articles, which were then cataloged by title, author, name of source, date published, and a 1-3 keyword summary. Articles that ran on multiple pages in print sources were often listed multiple times in the results, so redundancies were omitted in the final catalog of articles that totaled 839 entries.

## **Findings**

Keywords were designated based on a story's content in relation to the public information and information regarding management of Louisiana's nutria population. The most common keywords included: Cajun, description, consumption of invasive species, eradication and management, funding, trapping and hunting, and wildlife. Other common themes were also discovered in this study, such as the Rougarou Fest, which had aspects of Cajun culture and the consumption of invasive species but was an event focused on public outreach.

In total, 55 news sources reported stories on nutria from 2015-2020. As a result of national legislation about funding for nutria eradication and control being discussed in 2020, 34 different news sources covered the story, which is much higher than the total number of sources for any other year included in the study.



## **Cajun**

From the five-year span covered, 41 stories with references to Cajun and Cajun culture were published. Although no instances were recorded for 2015, the number of stories including this theme, when compared to the other themes, did not vary by a large amount over the years. The year that recorded the largest percentage of stories with this theme was 2019, which had 29%. The years immediately preceding and following 2019 each contained seven stories. Five were recorded for 2017, and 2016 had 10.

A little over 56% of the stories that included Cajun references were published in February, around the time of Groundhog Day. The holiday that is celebrated in the state is Cajun Groundhog Day, during which a nutria called Pierre C. Shadeaux predicts whether the state will experience a long spring or an early summer. The event usually takes place in New Iberia, Louisiana, but it has been held at Zoosiana, a zoo in Broussard, Louisiana, where the nutria is housed the rest of the year. According to an article published in the Lafayette Daily Advertiser, this version of the holiday began when one of the publishers for The Daily Iberian “was struggling to find something to write about” (Dodge, 2021). Over time, the event added an essay contest, and the winning essays for 2020 were published in The Daily Iberian. As a result, stories about the Cajun Groundhog and the holiday’s development provide more insight into the workings of a newsroom and the establishment of local traditions than they do for education about Cajun culture and how it interacts with the conversation on nutria in Louisiana.

Cajun is the only keyword used to catalog stories that would require the

story to explicitly include the term. For others, the theme could be implied, but for a story to be cataloged for Cajun culture, it had to say that at least one of its subjects was Cajun or was related to the term. Because most of the stories were about Cajun Groundhog Day, more stories that had Cajun themes and referenced nutria mentioned the holiday and Pierre C. Shadeaux than stories about the Cajun people.

### **Description and Wildlife**

The term description was used for any story containing the word nutria, but it described locations and situations instead of the animal. Every year had stories in which nutria was used as a description. In total there were 107 stories, and of this, a little over 93% were not relevant to public information on the conversation about nutria. These stories include using nutria as a name for streets, music groups, and a screening of the 1985 movie “Nutriaman.”

Wildlife was the second-most commonly occurring term used to catalog articles. In total, 227 articles were listed with this term. The highest number of occurrences for this term occurred early on in the five-year span with 55 articles in 2016. In 2015, 46 stories were counted. After 2016, the number of occurrences each year begins to decrease with 38 in 2017, 35 in 2018, and 25 in 2019. As with many other themes, 2020 experienced more instances of stories referring to nutria as wildlife, but it was still lower than many of the other years’ numbers with 28 stories.

The typical use of this term was to designate stories that did not cover issues related to eradication and management, pelts or fur clothing, consumption of nutria, but still mentioned the animal, nutria. This was a key difference between the use of the term description and function of wildlife as a term, although the content each of

the terms covered was similar and was rarely relevant to the conversation on nutria. The term wildlife did get paired with other themes such as Cajun and funding, but it usually occurred as the only keyword for a story.

Out of all the stories cataloged with these themes, 78% were not relevant to public information about nutria, its impact in Louisiana, or management strategies and tactics. It is possible to learn some about nutria in the state with these cases, as they emphasize the extent of the situation. Most of the time with these stories, the existence of nutria in an area is acknowledged, and that is the extent of the information covered.

Not every story that appears when searching for the term nutria is going to provide information that fits with the public information surrounding the animal, but instances such as those recorded under description and wildlife still need to be counted, since they are a part of a conversation about the animal. Other themes also had stories that did not provide information about nutria, but the concentration of irrelevant stories was highest for these two themes.

### **Consumption of Invasive Species**

The themes from this section of stories were initially divided into two separate terms: eating nutria and eating other invasive species, but after analyzing the characteristics of each group, the only difference was what was being consumed. As a result, the groups were combined, but the keywords were left separate because it was the conversation on nutria that was being studied. The term, eating other invasive species did have one key point not featured in the stories about eating nutria, which was the work of chefs, restaurants, and wildlife organizations that has

already been made about the consumption of nutria that was referenced to give audiences a practical comparison to help them understand why they were being encouraged to prepare and consume other species and to motivate them to action with a concept that was familiar.

Moreover, some stories included the preparation of nutria or other invasive species to be sold and then consumed. This includes a series of stories about a dog treat company called Marsh Dog. The terms eating nutria and eating other invasive species could inaccurately imply that these animals were being eaten in each of the articles, which was the case only some of the time. For the discussion of the general trends related to this theme, the phrase consumption of invasive species will be used for clarification and accuracy.

In total, there were 91 occurrences for the consumption of invasive species, and with the exception of 2017 with 8 stories, the numbers increased over the years. For 2015, 2016, and 2018, there were 12, 13, and 14 stories listed for this theme, respectively. A little over 48% of the stories about the consumption of invasive species was published in 2019 and 2020; each year had 22 stories. These stories appeared throughout the year but would often be published in rapid succession. In 2018, six out of the 14 stories were published in March, but having many publications in March was not a trend for other years. Most of the time, these large groups of publications would be from multiple newspapers running the same articles. Continuing with the example of the stories from March 2018, these stories were not six separate articles, but were two that were picked up by three newspapers, which in this case were all different outlets of The Advocate.

Of the 16 writers credited for stories about the consumption of invasive species, the columnist Smiley Anders was responsible for 36% of occurrences. The format of his column would feature several anecdotes about people's experiences and ideas. The stories featured among the articles cataloged would include references to dishes made with nutria. The instances of these nutria dishes would appear without reference to managing an invasive species but would be treated as common occurrences and locally accepted food.

The appearance of celebrity chefs has also helped to increase awareness of the invasive nutria. For example, in June 2020, National Geographic aired an episode of "Gordon Ramsay: Uncharted" that featured the chef trying nutria stew. In a news article giving a synopsis of the episode, viewers were expected to see Ramsay "ride an airboat into the bayou with veteran nutria hunter Walter Heathcock to shoot a "swamp rat" [and taste] Heathcock's nutria stew" (Bergeron, 2020). In the episode, Ramsay gave the stew a positive review, which is an important endorsement for the image surrounding the consumption of invasive species. Since the show aired on National Geographic, a target audience wider than the audience for the local newspapers could be reached.

The show aired at an important time during the national conversation regarding nutria eradication and management. Although the bill was not a highly debated or discussed topic among the American population, national legislation was being discussed that would increase funding and its availability to each state in the United States. By using the stories and public information from that point in time, the general conversation about nutria and its eradication or control would have

been focused to a national scale.

Nutria was not the only invasive species for consumption mentioned in the news; recipes for apple snails, another invasive species, could also be found, but in these articles, the comparison for eating nutria was used to help the audience relate to the topic. One of the people who worked to normalize the consumption of nutria and other invasive species is Chef Philippe Parola, an expert in preparing dishes out of invasive species. His website is titled “Can’t Beat ’Em, Eat ’Em,” and has recipes for cooking nutria and other invasive species such as the apple snails and Asian carp. His recipes are also linked on the website for the Coastwide Nutria Control Program. All of these resources are public information, which adds practical skills and instructions for the recommendations featured in news stories, as the stories did not include recipes but listed the benefits and trends of the consumption of invasive species.

### **Eradication and Management**

The number of stories and news articles about eradication and management has increased over the years, and from the articles cataloged in this study, a total of 104 stories from 2015-2020 were identified as having this theme. In 2015, three stories were cataloged for eradication and management. Eight were noted for 2016, and the trend continued to grow the next year, with 20 stories. 2018, however, experienced the second fewest number of stories with this theme, totaling six, but in 2019, the former trend of growth resumed, and 19 stories were counted, almost matching the number of stories with this theme in 2017. In 2020, the number of stories about eradication and management increased by over 250%, leading to a

total of 48.

Although these stories could appear year-round, over 65% were written in either July (26 occurrences) or August (42 occurrences). This trend for the timing of publications about nutria eradication and management corresponds to the opening dates for the trapping and hunting season as regulated by the Louisiana Department of Wildlife and Fisheries. In August of 2020, six newspapers covered a law that was signed in June that would allow the nighttime take of nutria and other nuisance animals without a permit. The month prior, which was not long after the law was enacted, five newspapers ran the story. Although this increase in coverage does correspond to the beginning of nutria season in September, this law actually allows the year-round nighttime take of the animal (LDWF, 2020).

The term eradication and management was used to identify articles covering plans regarding the management of the nutria population in Louisiana. In multiple instances these stories overlapped with those including the theme trapping and hunting. When this occurred, both sets of terms were cataloged under the keyword category for that story. Eradication and management was distinguished by its focus on the legislative and regulatory news on the different management tactics. It is important to note that the nutria recreational season and the Coastwide Nutria Control Program are two separate programs. This difference was not explained or made clear in newspaper articles, but it is mentioned in the information published in the literature about hunting and trapping schedules and regulations that can be accessed by the public on the LDWF's website. The term eradication and management did not acknowledge this difference but was used to describe stories

from both programs.

In 2019, the Coastwide Nutria Control Program raised the bounty on each nutria tail from \$5 to \$6 as an attempt to increase the number of nutria brought in for the program. “The state [hoped] to nearly double the harvest of nutria [for the 2019-2020 season] to 400,000 by increasing the bounty” (Parker, 2019).

Information from this story initially ran by itself and was picked up by several newspapers, but during the year, details about this change would be included in other articles about nutria.

One instance included a story about Marsh Dog, the dog treat company that uses nutria meat in its product. The story was picked up by newspapers in Houma and Thibodaux, Louisiana and was published at the end of July 2019. The information about the change in bounty was included in the second half of the story. In using journalistic writing style, this story reads as though it were two short pieces of news that were packaged together. While its initial focus is on the consumption of nutria, which falls into a separate category in this study, the second half of the article introduces a concept that is treated with equal importance and could stand alone. It appears to be a functional deviation from the traditional writing style to run the stories as a unified piece instead of two short articles, as it kept all information about nutria each of the papers ran that day together.

## **Funding**

Another theme that often overlapped with eradication and management was funding. Throughout the 2015-2020 span, the number of articles with this theme mirrored the number for eradication and management, although the numbers for



funding were always lower. In 2015, no story was recorded for this theme, but five were listed for 2016 and six for 2017. As with eradication and management, fewer stories were listed in 2018, but the difference was less dramatic for funding, which had four stories. The similarities continue for the next two years with 14 stories in 2019 and 33 for 2020.

For 2019 and 2017, this overlap with eradication and management occurred in every story listed for funding. This trend occurred in exactly half of the stories with this theme for 2018. Out of the four published, two shared themes with eradication and management and were the same story published by different sources: The Courier in Houma and The AP state wire. In 2016, four out of five had the same overlap. Two were published by The Advocate in Baton Rouge, and the other two stories were published by separate newspapers. Like the instance with eradication and management and the consumption of nutria, the two towns are Houma and Thibodaux. Although the newspapers are not linked through an organization such as The Advocate, which circulates news through different towns, the two sources are owned by Gannett, a media holding company that also includes USA today (Gannett Brands, 2021).

In 2020, a little over 69% of stories about funding overlapped with eradication and management. This overlap took up 48% of the stories listed under the latter theme. For this year, 12 different newspapers ran stories with the shared themes. This increase can be attributed to national bipartisan legislation pushed by Garret Graves, a Republican US Representative from Louisiana, and Josh Harder, a Democrat US Representative from California. The bill was signed into law on

October 30, 2020 as an expansion of the Nutria Eradication and Control Act of 2003, the bill “triples the amount of federal money available to fight the spread of nutria,” increasing the budget from “\$4 million each year to support nutria hunting and trapping programs in Louisiana and Maryland [to] \$12 million available each year to all affected states until 2025” (Baurick, 2020). This story demonstrates how the two themes interact since it covers a legislative issue, but the goal in the story is to increase funding. Also, this story helped increase the number of newspapers circulating nutria stories from 16 in 2019 to 34 in 2020.

### **Pelt and fur clothing**

The terms pelt and fur clothing had the fewest number of results among the major keywords used to catalog these stories. The importance of these terms is connected to the history of the animal in Louisiana and its originally intended purpose as a furbearer. Frequently, stories that would merit both terms would occur, but each had different criteria. The term pelt was used to describe the use of nutria fur but also included any instances of the animal’s hide in a raw state by referencing the animal between the time it was caught and the time it was processed. Fur clothing described a finished product made from nutria or any processed product that used nutria, such as jewelry and clothing. Pelt was extended as a general term for any nutria product not meant to be eaten.

In total, 33 stories were included under the term pelt, 15 of which overlapped to cover the stories involving fur clothing. As one of the less popular themes, instances of articles about nutria pelts appeared sporadically throughout the five-year span. In 2015, 10 stories were listed, and the number continued to

decline over the years with seven in 2016, three in 2018, and two in 2019. No stories featuring either term were published in 2017, but 2020 featured a rise in stories with 11. This was still much lower than many of the major keywords and themes.

These stories were split between two common themes: items such as jewelry featured for sale at fairs and events and the pastime and livelihood of people in interviews. This split also occurred over a period of time. Most of the stories that featured items for sale were published in 2015 and 2016, and the instances of articles about the pastime and livelihood of the people in the state appeared from 2018-2020. In connection to the term Cajun, although few articles covered stories about the Cajun people, most of the stories that did include this theme, also involved pelts.

### **Trapping and Hunting**

In Louisiana, the season for hunting nutria runs from September 1 to the last day of February, however, on the Atchafalaya Delta, Salvador/Timken, Pointe-Aux-Chenes, and Pass-a-Loutre Wildlife Management Areas (WMAs), the season extends until March 31. The same dates apply to trapping activities, as well as the extensions on the previously mentioned WMAs. According to the hunting regulations, hunters may take up to five nutria per day. The activity described in these regulations is the recreational harvesting of nutria (LDWF Hunting & WMA Regulations, 2020). The Coastwide Nutria Control Program has an application process in which “applications submitted to the department or its contractor by October 1 shall be processed by the opening of trapping season (November 20 – March 31)” (LDWF, 2020). This is a

discrepancy from the information on trapping season, but each program is not related to the other, although the Louisiana Department of Wildlife and Fisheries is responsible for the publication and updating of information for both. The Coastwide Nutria Control Program has a \$6 bounty on every nutria tail delivered to a designated collection center, which is funded by the Coastal Wetlands Planning, Protection, and Restoration Act of 1990. More regulations regarding hunting behavior and practices exist for this program, and it operates in a region comprised of “coastal Louisiana, bounded on the north by Interstate 10 from LA-TX line to Baton Rouge, Interstate 12 from Baton Rouge to Slidell, and Interstate 10 from Slidell to LA-MS line” (LDWF, 2020).

Although these regulations and definitions exist to distinguish recreational hunting and trapping from the nutria control program, these were not acknowledged in this study. Any story that covered the rules and regulations for trapping or hunting for either program was given the term trapping and hunting.

Trapping and hunting was the most common term used when cataloging stories with a total of 285 articles. Unlike many of the other terms, this theme decreased in popularity over time. It began with some of the highest numbers compared to other themes with 68 in 2015, 67 in 2016, and the highest overall recorded number of instances at 77 for 2017. From that point, the decline in popularity of this type of publication began with 44 in 2018, 5 in 2019, and 25 in 2020. When compared to all the other terms, trapping and hunting made up 28% of themes found in stories.

Majority of these stories were hunting schedules that were published twice

per week throughout hunting season in 2018, which ended up covering exactly 50% of the themes used that year. For the years leading up to 2018, trapping and hunting made up 60% of themes in 2015, 62% in 2016, and 67% in 2017. In 2020, this term often overlapped with eradication and management, but hunting schedules were the primary story type for this theme.

### **Documentary**

The award-winning documentary, “Rodents of Unusual Size,” premiered at DOC NYC in November of 2017 under the category Wildlife and has been shown around the United States. According to one news article, “there’s not a lot here that Louisianans haven’t heard before. But what it lacks in revelations, it makes up for in embraceability” (Scott, 2018). The documentary covers many of the same themes that can be found in other nutria research, these include: the history of the animal’s existence in Louisiana and how it affects life today. Its focus is on the people who live in the region, their opinions regarding the nutria, and what trends exist that could contribute to these opinions.

The documentary was made by Quinn Costello, Chris Metzler, and Jeff Springer, who have been responsible for the production of other documentaries such as “Plagues & Pleasures on the Salton Sea,” “The New Environmentalists,” and “Everyday Sunshine: the Story of Fishbone.” Other topics that have been the subject of their documentaries include: “rogue economists, lucha libre wrestlers, ganja-preneurs and evangelical Christian surfers” (Filmmakers-Rodents of Unusual Size).

Although press outside of Louisiana and media other than newspapers covered the story, from the sources cataloged, there were eight occurrences of the

documentary in news articles about nutria. Five occurred in 2018 and three in 2019. All of these articles gave the documentary positive reviews, but according to the stories, it did not add new information to the conversation about nutria in Louisiana. Instead, the documentary served as a new medium on which the conversation was being conducted.

### **Mascot**

It is possible to gather the cultural influence the nutria has had on the people in Louisiana by looking at the animal's placement in local symbols and icons, such as mascots from a sports team. From 2015-2017, six stories were published about the mascot Bordeaux for the minor league baseball team, The New Orleans Baby Cakes. Most of the articles discussed the 2018 name change from The Zephyrs to The Baby Cakes, changes to the mascot, and that the team would keep the mascot after the rebranding. Like the stories that were listed under the term description, more information about the social impact can be gathered than on the environmental impact of the species.

### **Rougarou Fest**

The Rougarou Fest is an annual festival held at the end of October in Houma, Louisiana. The event is named for the Rougarou, a werewolf of Cajun legend that eats misbehaving children and Catholics that do not observe Lent (Allen, 2019; Blumberg, 2019, and Baily). According to event organizers, the festival "celebrates the rich folklore that exists along the bayous of Southeast Louisiana" by sharing stories such as tales of the Rougarou and other Louisiana legends (Fest Info). The festivities include music, craft activities and booths that showcase cultures in the

region, such as Cajun and First Nation cultures, and has examples of Cajun cuisine.

The festival's host, the South Louisiana Wetlands Discovery Center, is a nonprofit organization that teaches students in Louisiana about the state's coastal erosion, a problem to which the nutria contributes. The discovery center focuses on STEM-based programming while also addressing "the politics of coastal restoration [so that] students gain a comprehensive understanding of the challenges [they] face and their role in providing potential solutions" (Programs). The center has developed a four-stage strategic plan to expand and improve their facilities. Contrary to strategic plans with time-based components, the achievement of the goals stated in each of the plan's stages is based off of funding availability. As a result, annual fundraisers such as the Rougarou Fest and the Rougarou Ball help contribute funds to the organization's educational programming and goals.

The Rougarou Fest began in 2012, and has continued to be held each year, even in 2020, when the events moved to an online format. In 2019, nutria made its debut on the menu in the form of chili. For the event, 10 pounds of chili were prepared and served. According to a Houma news article, the chili had completely sold out within two hours, and the story's writer continued by listing information from the state's bounty program and speculating, "maybe a signature dish that gives people even more incentive to hunt the creatures will help" (Yoshonis, 2019). Before nutria began being served at the festivities, the Rougarou Fest hosted an event in which a nutria would be pardoned by the parish president. The nutria pardoning continues to be an event at each festival.

The occurrence of nutria in news stories surrounding these festivities can

provide insight into the region's sentiment for the species and the different proposed management techniques. In the scale of researching news articles for instances of nutria and their management, the Rougarou Fest does not occur frequently. Much of the communication about the festival and its activities is presented in an online format. The festivities' schedule can be found on the event's website, [rougaroufest.org](http://rougaroufest.org), and videos of the nutria pardoning are on Facebook. Due to the event's size and community impact, magazines such as Southern Living have published stories about it. Consequently, these publications open up the consumption of nutria and other nutria related topics to a wider audience outside of Houma that may not be aware of the species or its effect on the environment.

### **Pet Nutria**

Among all of the news articles cataloged, there was one instance of a person keeping a nutria as a pet. The article that included this information did not treat keeping a nutria as a pet as an anomaly, and the inclusion of a similar situation in the documentary, "Rodents of Unusual Size" would support this claim. Rick Atkinson, a zookeeper at the Audubon Zoo, mentioned that "people in South Louisiana often find young nutria and keep them as pets" (Costello, Metzler, & Springer, 2017).

The story that mentioned the pet nutria was about an episode of the Hulu series, "I Love You, America" with comedian Sarah Silverman in which she visited the Standers family in Chalmette, Louisiana. The inclusion of nutria in this story was used to provide insight about the family and was treated as a description of a situation. In the article, no information about the nutria was provided outside of this



usage.

“Rodents of Unusual Size” included more information about keeping a pet nutria, but it did not describe what details went into maintenance. The example from the documentary was of a pet nutria named Little Bit whose owner, Eric Dement, would also hunt and trap nutria despite keeping one as a pet. According to Dement, he “wouldn’t say nutria make a good pet. They require maintenance, and they don’t socialize with people they don’t know” (Costello, Metzler, & Springer, 2017). Both Dement and Atkinson warn the audience that nutria can be aggressive. In each occurrence, a pet nutria is treated more like a description than anything else.

## **Conclusion**

With each of these terms, it is possible to gather the type of information prioritized in the conversation regarding public information about nutria in Louisiana. When articles about the nutria story were covered by sources outside of the local and statewide papers, the writers appeared to use a tone that implies shared experiences of the audience to create the sense of community. The clearest examples of this were for the stories that covered television and film, which included “Gordon Ramsay: Uncharted,” “Rodents of Unusual Size,” and Sarah Silverman’s, “I Love You, America,” which did not cover nutria but still shared the same writing style.

From the history of the animal’s involvement in the state and its existence as a furbearer, it would be expected that more news stories that covered themes of pelt and fur clothing would have been published, but as the industry declined, so did the conversation on this aspect of population management. However, when an in-depth

piece covers the history of nutria in the state and the pastimes and livelihoods of the people, which would include trapping nutria for their pelts, this type of story would appear in multiple news sources.

By using each of the patterns that appear among these key terms, the conversational trends regarding nutria in Louisiana are centered around the people who will read the stories. The uses and gratifications theory states that people “consciously select media content to satisfy their various needs,” which can include cognitive, emotional, social, and other needs (Quesenberry, 2019; Rosenberry & Vicker 2009). Many sources of information exist, such as the news sources in this study, and because of specific factors, such as geographic region, age, and habits, the members of each source’s target audience can overlap. Although uses and gratifications focuses on the audiences and the value and use they get out of the media consumed, it is possible to interpret what it means for the sources.

Newspapers, magazines, streaming services, radio, Instagram and Twitter users, all produce content to satisfy a need, but attention is limited. Newer platforms such as social media can take on more versatile functions to satisfy needs relating to current events, emotions, community, and social needs, which can be accessed anywhere without the need to switch the device or apparatus for media consumption. From the sources in this study, all newspapers have reacted to this increase in competition for the attention of consumers by creating websites to improve access to stories, and some have also created Facebook pages to share news about new editions of the paper and important updates regarding the media organization. These factors can also contribute to the content published, which has led to story

titles such as, “Pass the Lenten muskrat, please,” a story that ran in *The Acadiana Advocate*, *The Advocate* (Baton Rouge), and *The New Orleans Advocate* (Smiley Anders, 2017).

The conversations around modern media platforms such as social media and traditional platforms are about if or when one platform will overtake the other or about the differences in their uses and capabilities. One such factor is two-way communication. This factor as well as the ability to interact with content creators, sharers, and other users on social media is stressed as it is easy to gage and track, however, it is important to remember that writing and publishing stories for the audience that will be consuming the information and adapting to a changing environment in order to reach this audience is important for the success of all media platforms. As exemplified by the programs from the South Louisiana Wetlands Discovery center, in order to have effective scientific education and discussion, an appeal to what it means to the audience will help establish more meaningful conversation and action about an issue such as the one covered in this study.

Another aspect of uses and gratifications is “[the assumption] all content has potential value” (Quesenberry, 2019). This supports the findings from the stories that received the description and wildlife labels. Even though those stories did not contribute to the one conversation this study aimed to analyze, they were still written, circulated, and consumed to satisfy needs in relation to another conversation that happened to occur in the same region, at the same time, and had many other overlapping aspects such as nutria and audience, but the goals and needs that were met by these stories differed from those that featured themes of

eradication and management or funding.

The findings from the theme about the consumption of invasive species help to give a frame of reference for the progression and duration of the conversation on nutria in Louisiana. Most of the articles from this study did not present eating nutria as a new concept, but instead used this idea to help provide an example or to illustrate the benefits of consuming other invasive species. This can lead to two conclusions: either this management technique was already implemented in the past and the conversation has been going on for many years, or the large nutria population has been treated as a source of food for some time. From the research about campaigns such as Chef Parola's "Can't Beat 'Em, Eat 'Em," and from the articles that told stories of people's pastimes, both observations are true.

The information about consumption does contrast with the findings on stories about pelts. Because eating nutria appears to have been a practice adopted in the past that is still used today, and the use of nutria pelts was once the main form of population management but today is a minor theme in the conversation, it shows that the conversation and the work is not over once a target audience accepts or adopts an idea. Ideas that exist outside the immediate situation can be perceived as threats to an action adopted as the social norm. It is the role of communicators to observe these potential threats, and to develop a plan to adapt to changing circumstances. In the example of pelts, the organization Righteous Fur, which was featured in the documentary, "Rodents of Unusual Size," has the slogan, "Save our wetlands: wear more nutria" and markets its products as "guilt free fur" (Grossman, 2010). As noted in the findings, this part of the conversation had become a minor

theme by 2015, although it still should be included among the communication themes on this topic.

Overall, the conversational themes regarding nutria in Louisiana cover more than just the management of invasive species. These trends also show the social importance of nutria and its appearance in media for entertainment as well as in the news. However, the fact that such a conversation exists does not repair the damages or solve the problems on its own, but its existence does indicate a public that would be receptive to invasive species management strategies and tactics proposed by environmental educators and researchers so long as the region's past information is acknowledged, and the ongoing conversation and trends are respected.

## References

- Allen, B. (2019, October 16). Legend of the Rougarou: Louisiana's Werewolf. The Crescent Magazine. Retrieved from <https://tulanemagazine.com/>
- Allman, K. (2017, October 13). WATCH: Sarah Silverman visits Trump supporters in Chalmette on I Love You, America. Gambit (New Orleans, LA). Available from NewsBank: Access World News:  
<http://haproxy.newsbank.com:11021:11021/apps/news/document-view?p=AWNB&docref=news/16796771541E7B70>.
- Anders, S. (2017, March 15). Smiley: Pass the Lenten muskrat, please. Advocate, The (Baton Rouge, LA). Available from NewsBank: Access World News:  
<http://haproxy.newsbank.com:11021:11021/apps/news/document-view?p=AWNB&docref=news/1632AD792FD49930>.
- Awards & Press. (n.d.). Retrieved from  
<http://www.rodentsofunusualsize.tv/awardsAndPress.php>
- Bailey, S. (n.d.). Beware of Louisiana's Rougarou! Have you heard of the creepy, Cajun swamp legend? NOLA Weekend. Retrieved from  
<https://www.nolaweekend.com/>
- Balestrieri, A., Zenato, M., Fontana, E., Vezza, P., Remonti, L., Caronni, F. E., Saino, N., & Prigioni, C. (2015). An indirect method for assessing the abundance of introduced pest *Myocastor coypus* (Rodentia) in agricultural landscapes, *Journal of Zoology* 298(2016), 37–45. doi:10.1111/jzo.12284
- Baurick, T. (2020, July 29). New law makes it easier to hunt feral hogs, nutria. Courier, The (Houma, LA), p. A1. Available from NewsBank: Access World

- News: <http://haproxy.newsbank.com:11021:11021/apps/news/document-view?p=AWNB&docref=news/17C88CD6459F8F58>
- Baurick, T. (2020, November 3). President Donald Trump signs bill making nutria eradication a nationwide effort. *New Orleans Advocate, The (LA)*. Available from NewsBank: Access World News:  
<http://haproxy.newsbank.com:11021:11021/apps/news/document-view?p=AWNB&docref=news/17E8AA60E3594548>.
- Bergeron, J. (2020, June 18). 'Uncharted' territory: Gordon Ramsay learns cooking the Cajun way; see video. *Acadiana Advocate, The (LA)*. Available from NewsBank: Access World News:  
<http://haproxy.newsbank.com:11021:11021/apps/news/document-view?p=AWNB&docref=news/17BB2D4044678C58>.
- Blumberg, P.O. (2019, October 24). Houma, Louisiana Has an Entire Festival This Weekend Devoted to a Swamp Werewolf Called the Rougarou. *Southern Living*. Retrieved from <https://www.southernliving.com/>
- Carter, J. & Leonard, B.P. (2002) A Review of the Literature on the Worldwide Distribution, Spread of, and Efforts to Eradicate the Coypu (*Myocastor coypus*). *Wildlife Society Bulletin, 30*, 162-175.
- Coastal Organizations (n.d.). Retrieved from <https://rougaroufest.org/coastal-organizations/>
- Costello, Q. (Producer/Director), Metzler, C. (Producer/Director), & Springer, J. (Producer/Director). (2017). *Rodents of Unusual Size [Documentary]*. United States: Tilapia Film, LLC.

- Dalrymple, K.E., Shaw, B.R., & Brossard, D. (2013). Following the Leader: Using Opinion Leaders in Environmental Strategic Communication. *Society & Natural Resources*, 26(12), 1438-1453, DOI: 10.1080/08941920.2013.820812
- DAUME, S., & FÜLDNER, K. (2016). "Forest Tweets" - Informal Digital Coverage of the Oak Processionary Moth or Why Foresters should care about Social Media. *Allgemeine Forst- Und Jagdzeitung*, 187(9/10), 185–197.
- Davis, E., Caffrey, J.M., Coughlan, N.E., Dick, J.T., & Lucy, E.F. (2018) Communications, outreach and citizen science: spreading the word about invasive alien species. *Management of Biological Invasions*, 9(4), 515–525. DOI: <https://doi.org/10.3391/mbi.2018.9.4.14>
- Dodge, V. (2021, February 2). Did Pierre C. Shadeaux see his shadow? Nutria skips Groundhog Day. Lafayette Daily Advertiser. Retrieved from <https://www.theadvertiser.com/story/news/local/2021/02/03/pierre-c-shadeaux-nutria-skips-groundhog-day/4352859001/>
- Fest Info (n.d.). Retrieved from <https://rougaroufest.org/fest-info/>
- Filmmakers. (n.d.) Retrieved from <http://www.rodentsofunusualsize.tv/filmmakers.html>
- Gabrey, S.W., Kinler, N., & Elsey, R.M. (2009) Impacts of Nutria Removal on Food Habits of American Alligators in Louisiana. *SOUTHEASTERN NATURALIST*, 8(2), 347-354
- Gannett Brands. (2021). Retrieved from <https://www.gannett.com/brands/>



- Grossman, A.J. (2010, November 17). Is Their Pest Your Clean Conscience? *The New York Times*. Retrieved from <https://www.nytimes.com/2010/11/18/fashion/18nutria.html?ref=fashion>
- Hart, P.S., & Larson, B.M.H. (2014). Communicating About Invasive Species: How “Driver” and “Passenger” Models Influence Public Willingness to Take Action. *Conservation Letters*, 7(6), 545–552. doi: 10.1111/conl.12109
- Jarnevich, C.S., Young, N.E., Sheffels, T.R., Carter, J., Sytsma, M.D., & Talbert, C. (2017) Evaluating simplistic methods to understand current distributions and forecast distribution changes under climate change scenarios: an example with coypu (*Myocastor coypus*). *NeoBiota*, 32, 107-125. doi:10.3897/neobiota.32.8884 <http://neobiota.pensoft.net>
- Jojola, S.M., Witmer, G.W., & Burke, P.W. (2009) Evaluation of Attractants to Improve Trapping Success of Nutria on Louisiana Coastal Marsh. *Journal of Wildlife Management* 73(8), 1414-1419.
- Klima, K., & Travis, S.E. (2012). Genetic population structure of invasive nutria (*Myocastor coypus*) in Louisiana, USA: is it sufficient for the development of eradication units?. *Biological Invasions* 14, 1909–1918 <https://doi.org/10.1007/s10530-012-0201-5>
- Linscombe, G. & Kinler, N. (1990) Nutria. *Louisiana Conservationist*, 42, 30-31.
- Louisiana 2020-2021 Hunting & WMA Regulations. (2020, September 25) *Louisiana Department of Wildlife and Fisheries*. <https://www.wlf.louisiana.gov/page/seasons-and-regulations>

Louisiana Department of Wildlife and Fisheries. (2020, September 22) Coastwide Nutria Control Program. <https://nutria.com/site10.php>

Lucy, F.E., et al. (2016). INVASIVESNET towards an International Association for Open Knowledge on Invasive Alien Species. *Management of Biological Invasions* 7(2), 131–139. DOI: <http://dx.doi.org/10.3391/mbi.2016.7.2.01>

MacCash, D. (2017, April 26). KENNER PICAYUNE. Times-Picayune, The (New Orleans, LA), p. D01. Available from NewsBank: Access World News: <http://haproxy.newsbank.com:11021:11021/apps/news/document-view?p=AWNB&docref=news/16401AE435D12D08>.

Mach, J. (2017, October 11). Barbara Kopple, Sam Pollard, Julia Bacha docs to premiere at DOC NYC. Real Screen. Retrieved from <https://realscreen.com/2017/10/11/barbara-kopple-sam-pollard-julia-bacha-docs-to-premiere-at-doc-nyc/>

Magill, K. (2020, November 4). Federal money targets marsh-eating nutria. Daily Comet (Thibodaux, LA), p. A2. Available from NewsBank: Access World News: <http://haproxy.newsbank.com:11021:11021/apps/news/document-view?p=AWNB&docref=news/17E8A36540A7D4D8>

Martin C., & MacDonald, B.H. (2020). Using interpersonal communication strategies to encourage science conversations on social media. *PLoS ONE* 15(11): e0241972. <https://doi.org/10.1371/journal.pone.0241972>

McFalls, T. B., Keddy, P. A., Campbell, D., & Shaffer, G. (2010). Hurricanes, Floods, Levees, and Nutria: Vegetation Responses to Interacting Disturbance and Fertility Regimes with Implications for Coastal Wetland Restoration. *Journal*

- of Coastal Research*, 26(5), 901–911. <https://doi-org.proxy181.nclive.org/10.2112/JCOASTRES-D-09-00037.1>
- Parker, H. (2019, July 30). Nutria-based dog treats back on the market. Daily Comet (Thibodaux, LA), p. A1. Available from NewsBank: Access World News: <http://haproxy.newsbank.com:11021:11021/apps/news/document-view?p=AWNB&docref=news/17503E8D9C24F8A8>
- Programs (n.d.). [South Louisiana Wetlands Discovery Center webpage] Retrieved from <https://slwdc.org/programs/>
- Quesenberry, K.A. (2019). Write your plan, plan your sell. *Social Media Strategy: Marketing, Advertising, and Public Relations in the Consumer Revolution*, (2nd ed), (pp. 276-277). Rowman and Littlefield.
- Rosenberry, J. & Vicker, L.A. (2009). The individual perspective on mass communication theory. *Applied Mass Communication Theory: A Guide for Media Practitioners*, (pp. 124-127). Pearson Education.
- Rougarou Fest. (2017, October 21) Pardoning of the Nutria! [Facebook video] Retrieved from <https://www.facebook.com/358312240918369/videos/1550050965077818>
- Scott, M. (2018, August 24). Nutria in crosshairs of La. documentary Not a lot is new, but film tells the tale well. *Times-Picayune, The (New Orleans, LA)*, p. C02. Available from NewsBank: Access World News: <http://haproxy.newsbank.com:11021:11021/apps/news/document-view?p=AWNB&docref=news/16DFF55740651EB8>.

- Stromquist, K. (2016, November 15). New Orleans Zephyrs become ... the New Orleans Baby Cakes. *Gambit* (New Orleans, LA). Available from NewsBank: Access World News:  
<http://haproxy.newsbank.com:11021:11021/apps/news/document-view?p=AWNB&docref=news/160BA79EE0A51610>.
- Sullivan, M., Robinson, S., & Littnan, C. (2019). Social media as a data resource for #monkseal conservation. *PLoS ONE*, 14(10), 1–11. <https://doi-org.proxy181.nclive.org/10.1371/journal.pone.0222627>
- Verma, A., Wal, R., & Fischer, A. (2015). Microscope and spectacle: On the complexities of using new visual technologies to communicate about wildlife conservation. *AMBIO - A Journal of the Human Environment*, 44, 648–660. <https://doi-org.proxy181.nclive.org/10.1007/s13280-015-0715-z>
- Yoshonis, S. (2019, November 6). Nutria Chili was surprisingly popular addition to Rougarou Fest. *Courier, The* (Houma, LA), p. C1. Available from NewsBank: Access World News:  
<http://haproxy.newsbank.com:11021:11021/apps/news/document-view?p=AWNB&docref=news/1770E5FB8CD395A8>
- Yoshonis, S. (2019, October 24). Rougarou Festival combines learning with spooky fun. *Houma Today*. Retrieved from <https://www.houmatoday.com/>
- Yoshonis, S. (2020, September 6). Wetlands Discovery Center announces plan to keep Rougarou Fest alive in 2020. *Courier, The* (Houma, LA). Retrieved from <https://www.houmatoday.com/>