



March 21, 2008

United States  
Department of  
Agriculture

Animal and Plant  
Health Inspection  
Service

Wildlife Services

North Carolina State  
Office  
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Raleigh, NC 27617

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National Park Service  
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Buxton, NC 27920

Dear Britta:

During the most recent trip to Cape Hatteras National Seashore, USDA WS employees removed 24 mink (*Mustela vison*), 58 nutria (*Myocastor coypus*), 5 river otter (*Lontra canadensis*), and a feral cat (*Felis domesticus*). See Table 1 for further explanation.

**Table 1. Animals Removed From Ocracoke Island by USDA WS, During 2/13/08-3/3/08.**

Species	Mink	Nutria	Feral Cat	River Otter	Total Animals
Number Removed	24	58	1	5	88

This trip was our first visit concentrating on capturing mink, outside of setting just a few traps last summer. USDA WS conducted this most recent removal effort using a different strategy than has been historically employed while assisting the National Park Service (NPS). Instead of sending two employees for a period of 10 days, the NPS and USDA WS agreed on a plan that would enable a wildlife specialist to remain for a period of twenty days. The reasoning behind the change hinged largely on consideration for mink behavior and their typical ranges. This proved to be an appropriate measure as we did not catch any mink during the first seven days but 24 mink were removed during the final 13 days. The period in which USDA WS conducted predator removal efforts on Ocracoke Island lasted from February 13- March 3, 2008.

The locations that were the main focus of attention during this winter's visit were primarily those areas specified by the NPS staff (i.e. Ramp 72, areas along beach below Ramp 72, along Highway 12 between the airport and Ramp 68, and near the Hatteras ferry. USDA WS divided the island into two sections, a north end and south end; the dividing line was Ramp 68. In all, 17 of the mink were removed from the south end and seven were removed from the north end. The ratio of male to female mink captured was 6:1. See Table 2 for data concerning individual mink and their capture locations. It was our observation that the mink seemed hungry and this could potentially be the reason for mink roaming onto the beaches. Typically mink are not found in the densities that the NPS has had to deal with but this winter's efforts will hopefully reduce the amount of mink predation directed toward the shorebirds and their eggs.

Table 2. 2008 Winter Mink Data.

	Sex	Location	Geographic Area	GPS Location
1	Male	Hatteras Ferry	North	N35.18601 W075.78108
2	Male	Hatteras Ferry	North	N35.18601 W075.78108
3	Male	Hatteras Ferry	North	N35.18601 W075.78108
4	Female	Hatteras Ferry	North	N35.18601 W075.78108
5	Male	Hatteras Ferry	North	N35.18601 W075.78108
6	Male	1st Pond from Ferry	North	N35.17278 W075.80765
7	Female	1 <sup>st</sup> Bridge on Hwy 12	North	N35.14647 W075.87607
8	Male	3 <sup>rd</sup> Stop on Hwy 12	South	N35.12611 W075.92194
9	Male	3 <sup>rd</sup> Stop on Hwy 12	South	N35.12611 W075.92194
10	Male	3 <sup>rd</sup> Stop on Hwy 12	South	N35.12611 W075.92194
11	Male	3 <sup>rd</sup> Stop on Hwy 12	South	N35.12611 W075.92194
12	Male	3 <sup>rd</sup> Stop on Hwy 12	South	N35.11407 W075.94444
13	Female	4 <sup>th</sup> Stop on Hwy 12	South	N35.11407 W075.94444
14	Male	4 <sup>th</sup> Stop on Hwy 12	South	N35.11407 W075.94444
15	Male	4 <sup>th</sup> Stop on Hwy 12	South	N35.11407 W075.94444
16	Male	4 <sup>th</sup> Stop on Hwy 12	South	N35.11407 W075.94444
17	Male	Last Culvert on Ramp 72	South	N35.09539 W075.98048
18	Female	Access Rd on Ramp 72	South	N35.08952 W075.98671
19	Male	Access Rd on Ramp 72	South	N35.08952 W075.98671
20	Male	Access Rd on Ramp 72	South	N35.08952 W075.98671
21	Male	Access Rd on Ramp 72	South	N35.08952 W075.98671
22	Male	Jeep Sign on South End	South	N35.08129 W075.99235
23	Male	Jeep Sign on South End	South	N35.08129 W075.99235
24	Male	Ponds at South End	South	N35.07686 W075.99896

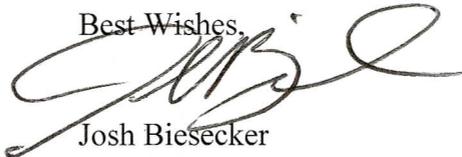
USDA WS encourages and recommends that the NPS establish recreational trapping seasons, during the winter months, on Cape Hatteras National Seashore to help manage predators as part of a multi-use plan, incorporating the utilization of furbearers as renewable resources. We were notified that trapping had been conducted by the NPS in areas south of Ramp 72 prior to USDA WS arriving in February; consequently the mink at locations south of Ramp 72 were difficult to catch using conibear traps; trap shy mink were removed primarily using foothold traps. Dealing with trap shy, or educated, animals requires more time and effort; animals of this nature are difficult to capture because of their reluctance to approach sets that seem out of the ordinary, even when the sets are blended in with the surrounding vegetation. We also recommend that any NPS employees who have an interest or will be setting traps attend and receive additional training on trapping methods. Additional trapping activity may make it more difficult for USDA WS to catch the educated animals that become trap shy but should help manage the overall predator population at no cost to the NPS.

We recommend a new interagency agreement be initiated for a summer visit during FY 2008 if mink predation continues to be an issue at Ocracoke Island or if the NPS would like USDA WS to address fox/ raccoon/ feral cat predation issues on Hatteras and/or Bodie Islands this summer. We are estimating it will cost approximately \$9,500 for USDA WS to have a full-time wildlife specialist(s) spend approximately 200 hours, assuming housing will still be available.

In conclusion, to meet the growing predator damage management demands and to be able to cover the entire area adequately over a given year, we could provide a full-time predator damage management technician year-round at a cost of \$85,000. We could also incorporate research on ghost crab management, exclusion methods, and cage trap efficiency with the National Wildlife Research Center if interested in a Wildlife Biologist grade level to conduct the research. We estimate the cost would be \$95,000 per year for the Wildlife Biologist level. Both positions would include salary, benefits, 4x4 truck, gas, supplies, equipment, supervision, administration, etc. If you would like additional information on potential research or would like to have a meeting to discuss details let us know. The relationship would be the same except you would have a USDA employee year round to help you manage your predator damage needs.

We hope that our services and results met your expectations; we look forward to assisting the National Park Service in the future.

Best Wishes,



Josh Biesecker  
Senior Wildlife Specialist



Todd Menke  
Assistant State Director