

NET ENVIRONMENTAL BENEFITS ANALYSIS SPECIES FACT SHEET: AMERICAN BEAVER (*Castor Canadensis*)

I. Species Description

Beavers are the largest rodents in North America. They are primarily aquatic animals. They average 3 to 4 feet in length and range from 30 to 75 pounds in weight. They have a waterproof, rich, glossy, reddish brown or blackish brown coat. The ears are short, round, and dark brown. The hind legs are longer than the front legs, making the rear end higher than the front end while walking. A beaver's incisors are long, massive and sharp and are used chiefly for gnawing. They have a spilt nail on the second hind toe used for grooming. Beavers are easily identified by their large paddle-shaped tails.



Beavers are found throughout all of North America except for the northern regions of Canada, the deserts of the southern United States, Mexico, and Florida. They live in lodges, of which there are three types: those built on islands, those built on the banks of ponds, and those built on the shores of lakes. The island lodge consists of a central chamber, with its floor slightly above the water level, and with two entrances. One entrance opens up into the center of the hut floor, while the other is a more abrupt descent into the water.



Beavers confine their activities to within one-half mile of their lodge or den. They are most active at night, dusk, and dawn. Daytime activity is rare except during the breeding season, when the ice melts in springtime, and in areas with little human disturbance.

Beavers eat bark and cambium (the softer growing tissue under the bark of trees). Their favorites include willow, maple, poplar, beech, birch, alder, and aspen trees. They store woody vegetation near shore for winter food. They also eat water vegetation, buds, and roots in warm weather.

II. Sensitivity to Oil and Other Spills

Beavers spend large amounts of time in the water and rely on their fur for insulation. If externally oiled, they could suffer eye damage or become hypothermic and die. Beavers groom frequently, placing them at risk of ingesting oil. Consumption of contaminated plants could also result in oil ingestion. Ingestion of oil can result in digestive tract bleeding and in liver and kidney damage. Breathing hydrocarbon vapors can result in nerve damage and behavioral abnormalities to all mammals. Spills may also indirectly affect habitats and food resources.

NET ENVIRONMENTAL BENEFITS ANALYSIS SPECIES FACT SHEET: AMERICAN BEAVER (*Castor Canadensis*)

III. Sensitivity to Response Methods

Methods Causing Least Adverse Impacts

Boom Deployment

- Control the movement of floating oil to prevent or reduce contamination of species.

Skimming

- Recover floating oil from surface to prevent or reduce contamination of species.

Physical Herding

- Free oil trapped in vegetation or debris to move away from sensitive areas.

Vacuum

- Minimal effects if foot and vehicular traffic is controlled and minimal substrate is removed.

Manual Cleaning/Removal

- Oiled debris should be removed to prevent scavenging and the ingestion of oil.

Methods Causing Some Adverse Impact

In-Situ Burning

- If used, include either wildlife hazing in burn area or capture of oiled wildlife.

Shoreline Cleaning Agents

- Wildlife may contact cleaning agents and/or bioremediation substances used for shoreline treatment.

Sorbents

- Likely disturbance of habitat during deployment and retrieval. Use should be monitored to prevent overuse and generating large volumes of waste.

Scare Tactics

- Increased stressing of wildlife may lead to shock and fatalities.

Methods Causing Probable Adverse Impact

Natural Recovery

- This method may be inappropriate for areas where high numbers of mobile animals (birds, terrestrial mammals) or endangered species use the body of water or shoreline.

Vegetation Removal

- Will destroy habitat for many animals. Cut areas will have reduced plant growth. Trampled areas will recover much more slowly.

Sources

http://www.great-lakes.net/partners/epa/acp-rcp/app_VI.html#2.0

State of Illinois, Illinois Department of Natural Resources, [Illinois Furbearer Guide: Beaver](http://www.dnr.state.il.us/orc/wildlife/furbearers/beaver.htm), Accessed February 8, 2006 at, <http://www.dnr.state.il.us/orc/wildlife/furbearers/beaver.htm>

Anderson, R. 2002. "Castor canadensis" (On-line), Animal Diversity Web. Accessed February 23, 2006 at, http://animaldiversity.umnz.umich.edu/site/accounts/information/Castor_canadensis.html.

<http://www.epa.gov/oilspill/pdfs/chap5.pdf>