

NET ENVIRONMENTAL BENEFITS ANALYSIS SPECIES FACT SHEET: WATERFOWL (*Family Anatidae*)

I. Species Description

Waterfowl are distributed worldwide, except for the Antarctic region. This family of birds includes ducks, geese, and swans. They inhabit aquatic habitats such as lakes, ponds, streams, rivers, and marshes. Some groups inhabit marine environments outside of the breeding season. Many waterfowl are migratory, although tropical and subtropical species remain close to breeding grounds during non-breeding season.



Waterfowl are medium to large birds (1 to 6 ft; 8 oz to 50 lbs). The bird's necks are relatively long and the heads are small. Wings are short and tails may be short and rounded or longer and narrow. Legs are set far back on the body and the front three toes are webbed. Bills are generally broad. The birds spend much of their time in the water and spend a great deal of time on preening and feather maintenance. They use their bills to condition and waterproof their feathers with oil secreted from a gland in the skin at the base of the tail.



Waterfowl are known for their flock formations, which may serve to provide predator protection or to facilitate locating abundant food sources. Waterfowl may form small flocks or groups of up to several hundred thousand individuals.

Most waterfowl are omnivorous, but some are primarily herbivorous and others are mostly carnivorous. They eat the seeds, roots, stems, leaves and flowers of aquatic

vegetation. Some feed on plankton or algae. Other food items taken include mollusks, aquatic insects, crustaceans and small fish.

II. Sensitivity to Oil and Other Spills

The primary direct effect from exposure to oil for waterfowl is getting oil on their feathers and losing their ability to stay insulated, waterproof, and afloat. This can result in death from hypothermia. Waterfowl may ingest oil while trying to clean their feathers or when they try to eat contaminated food. This ingestion can severely damage internal organs, impair the ability to eat, and may cause long-term reproductive effects. A great potential for damage is direct exposure of eggs to water borne contaminants.

NET ENVIRONMENTAL BENEFITS ANALYSIS SPECIES FACT SHEET: WATERFOWL (*Family Anatidae*)

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 to wildlife 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.

Dispersants

- Dispersant/detergent contact with birds can reduce insulating value of plumage.

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.ibrrc.org/oil_affects.html

Howard, L. 2003. "Anatidae" (On-line), Animal Diversity Web. Accessed February 23, 2006 at <http://animaldiversity.ummz.umich.edu/site/accounts/information/Anatidae.html>.

<http://www.epa.gov/oilspill/pdfbook.htm>

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