

# Science in Support of *Deepwater Horizon Oil Spill Response*

FWS/Donna A. Deubaurst



*Laughing Gulls*

## Introduction

The U.S. Fish and Wildlife Service (FWS), through the Department of the Interior is a Natural Resource Trustee under the National Contingency Plan for impacts to National Wildlife Refuge lands, migratory birds, Federally listed threatened and endangered species, and certain marine mammals, marine turtles, and interjurisdictional fish. In the DeepWater Horizon (DWH) oil spill, the FWS has taken a leadership role in evaluating the impact of DWH oil to migratory birds and refuge lands. We also are closely monitoring the spread of DWH oil and consulting with response agencies to minimize potential impacts to Federally-listed species and the habitats upon which they depend. We will quantify the magnitude and extent of any injury caused by DWH oil and associated response actions for all species and lands for which the FWS has Trustee responsibility. The FWS will collaborate with our co-trustees in seeking damages that will fully restore the injured resources to their pre-release conditions. Below is a bulleted list of the numerous injury assessment activities the FWS has taken a lead in pursuing with our Federal and State partners. These injury assessment studies do not represent an exhaustive list of FWS activities, rather they are examples of immediate, near-, and long-term actions we have begun. They serve as a starting point to stimulate dialogue with the non-Federal research community. We expect most of the

near-term activities to continue as long-term studies and all of our assessment studies will be coordinated and integrated with other relevant injury assessment studies to quantify impacts at the community and ecosystem level.

## Immediate Science Actions

### *Continuation of Established Avian Monitoring Activities*

- All Agencies and partners involved in avian monitoring activities in potentially affected areas are repeating their established bird survey protocols before, during, and following this event.
- Evaluate long- and short-term trends in species abundance and composition.

### *Aerial Survey and Photographic Census of Birds*

- Quantify the number and species composition of avian populations flying bi-weekly pelagic, nearshore, and shoreline aerial transects and by photographic censuses at breeding colonies.

### *Background Mortality and Ongoing Assessment of Birds from Beached Animal Surveys*

- Systematically evaluate the occurrence and incidence of live and dead wildlife along shorelines using established transects.
- Quantify carcass detection probabilities and scavenging and rewash rates.
- Develop protocols for conducting similar evaluations in vegetated shorelines (e.g. marsh and mangrove).

## Near-Term Science Actions (1-6 months)

### *Evaluation of Number and Percentage of Oiled Birds*

- Census colonies, breeding areas, roosting sites, and feeding areas to quantify the total number and percentage of visibly-oiled free-ranging birds.
- Quantify the extent of visible oil on free-ranging birds.
- Quantify mortality rates of oiled adult birds and appropriate controls using radio and satellite telemetry and color banding with appropriate controls.



FWS/Drew Wirz

*Nesting Terns*

## U.S. Fish & Wildlife Service

*For Each Taxa of Colonial Nesting Waterbirds, Secretive Marsh Birds, and Shorebirds*

- Quantify the number of adult birds with visible oil and the extent of oiling.
- Quantify the number of oiled eggs and chicks and assess their fate.
- Quantify the number of abandoned nests.

### Long-Term Science Actions

(2 months-decades)

*Transient/Wintering Bird Oiling and Mortality*

- Evaluate movement and densities of transient/wintering bird species.
- Quantify the proportion of live transient/wintering birds that become oiled in the spill affected area.
- Quantify the mortality rate of oiled birds and appropriate controls using radio and/or satellite telemetry and color banding.

*Pelagic Seabird Surveys*

- Quantify the number of dead floating birds in pelagic areas.
- Quantify the proportion of live birds at sea that are visibly oiled.

Additional study plans to evaluate the impact of this spill on Federally listed species (e.g., snowy plover, wood stork) and prominent species living in palustrine and coastal freshwater marshes (e.g., osprey) are being developed.

### Hotlines

To report oiled or injured wildlife:  
866/557 1401.

For media: Joint Information Center:  
713/323 1670 and 713/323 1671.

To report claims related to damages:  
800/440 0858.

To volunteer: 866/448 5816.

For more information about the Service's response and our resources at risk:

<http://www.fws.gov/home/dhoilspill>

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FWS/Tom MacKenzie

*BP contractors loading protective booms in Venice, Louisiana on 4/30/10 to be deployed in the Gulf of Mexico.*



Sean Downie

*Snowy Egrets*

