

# Deepwater Horizon (MC 252) Oil Spill Beach Bird Survey – Field Procedures

## Background

The coastline of the Gulf Coast has been subdivided into county/division sections from Corpus Christi, Texas to Merritt Island, Florida. Field teams will be assigned one or two county/division search sections as their sampling area. Within each sampling area, foot surveys will be conducted on 2 kilometer (km) segments. Segment surveys will consist of a Live Bird Assessment to estimate the proportion of birds that are oiled and a Bird Carcass Survey to document changes in bird mortality over time.

## Beach Segments/ Sampling Schedule

Survey segments are 2 km in length, spaced every 8 km (Table 1). When you complete the segment, you will move down the beach approximately 6 km and survey another 2 km segment.

Table 1. Illustration of sampling pattern of 2 km survey segments

| 2 km beach segments |      |      |      |                |
|---------------------|------|------|------|----------------|
| Survey Segment      | Skip | Skip | Skip | Survey Segment |

In general, surveys should be conducted from east to west with the first survey segment beginning at the eastern edge of the most eastern county in your assigned sampling area. In peninsular Florida, begin with the more southern segments. On the Texas coast, the more northern segments should be sampled first.

Note: Segments may be run in reverse direction where efficiency or safety is substantially increased compared to the standard, east to west direction of surveys.

Each search area should be surveyed once every three days. Unsuitable weather and sea conditions will occasionally prevent completion of one or more surveys. If a survey is missed, make it up immediately and continue on a regular basis through the rest of the segments. Example: If a survey cannot be conducted on day 3, it should be conducted on day 4, or if necessary day 5. If a missed survey(s)

cannot be completed within that extra two-day allowance, do not re-survey it, and resume the scheduled segment survey sequence.

GPS coordinates for the segments will generally be provided by your coordinator. However, if GPS coordinates are not available, simply record the coordinates of your beginning and ending points of each 2 km segment. The first time a segment is surveyed, use the “Track” function on the GPS for upload to the GIS database (this only has to be done once for each segment).

If you have any questions regarding this protocol, please call the NRDA field coordinator at 850-316-0941.

### **Permits and Access**

The NRDA program will provide field teams with any special permits needed to conduct the study. However, the field teams will need to coordinate local access with State and National parks, National Wildlife Refuges, and DOD lands. In Alabama, field teams will need a SONS permit/ID for accessing beaches closed to the public.

### **Beginning the Survey**

If a group of live birds is present at the starting point of your survey, begin with the Live Bird Assessment (see instructions below). After completing the Live Bird Assessment, some crews may be instructed to conduct a Shoreline Assessment (see Shoreline Assessment guidance). After completing the Shoreline Assessment, begin your Bird Carcass Survey.

### **Live Bird Assessment**

You will only evaluate birds that are close enough for you to confidently detect the presence of visible oil. This distance will vary, based on a variety of factors including the size of the bird, coloration of plumage, bird behavior (standing, sitting, flying), and degree of oiling. You are asked to evaluate birds for degree of oiling by species or class (gull, terns, sandpipers, plovers, etc.,) if identification to species is not possible.

You will perform one Live Bird Assessment per segment per day. If a group of birds is present at the beginning of your segment, proceed with a Live Bird Assessment; otherwise, perform the assessment on the first group of birds you

encounter. When stopped for a Live Bird Assessment, you may need to allow several minutes for birds to adjust to your presence. While waiting, fill out the top portion of the *Live Animal Assessment Form*.

- Record the names of the survey team, date (dd/mm/2010), division/segment name (e.g. Bay County, Division 2), type of optics used (e.g. Nikon Monarch 10X42), weather (e.g. overcast, windy), wind direction (toward or away from shore) and Visibility.
- Record your coordinates and create a waypoint in the GPS.
- When you are ready to begin the assessment, record the start time.
- Spend up to 15 minutes evaluating birds for degree of oiling. If all birds cannot be classified in 15 minutes, evaluate as many as practical.  
**Remember to only evaluate birds that are close enough for you to confidently detect the presence of visible oil.**
- For each species (or class), record each different behavior observed on a separate line (eg. “gull, standing”, “gull, flying”, “gull, on water”).
- Assess the birds in each behavior category for degree of oiling: no visible oil, trace oil ( $\leq 5\%$ ), light oil (6-20%), moderate oil (21-40%), or heavy oil ( $>40\%$ ) (See photos for examples of each oiling category). Also enter the number of birds observed that are debilitated.
- One person should observe the birds and call out the degree of oiling while the other tallies the observations on a note pad. When you are finished, add up the tallies for each species (or class) by behavior category and record the number in the appropriate percent oiling category. In the example below, the observer was able to confidently assess visible oiling on 5 sitting Brown pelicans, 6 standing Brown pelicans, and 3 flying Brown pelicans.

| Species/Class        | Behavior        | Degree of Oiling (record number of birds in category) <sup>1</sup> |             |               |                   |              |             |
|----------------------|-----------------|--|-------------|---------------|-------------------|--------------|-------------|
|                      |                 | No Visible Oil   | Trace (≤5%) | Light (6-20%) | Moderate (21-40%) | Heavy (>40%) | Debilitated |
| <i>Brown pelican</i> | <i>sitting</i>  | 3  | 1           | 1             | 0                 | 0            | 0           |
| <i>Brown pelican</i> | <i>standing</i> | 0  | 2           | 3             | 1                 | 0            | 0           |
| <i>Brown pelican</i> | <i>flying</i>   | 1  | 2           | 0             | 0                 | 0            | 0           |

- If additional pages are needed, make sure you note these additions in the upper right hand corner of the first page and on all subsequent pages (eg “page 1 of 3”).
- When your observations are finished, record the stop time. Both members of the field team should review the data sheet and sign beside their printed names.
- If no bird activity was observed anywhere on the segment, conduct an assessment at the segment end point- even if no birds are present. Write “no live birds observed” across the lines on the data sheet and cross-out this section with a large (X).
- Make sure all of the fields are filled in correctly, completely, and legibly. Cross- out all empty fields with an X.
- If you fill in a field on the data sheet incorrectly, cross out the incorrect entry with a SINGLE thin line and record your initials next to the crossed out entry.

### **Bird Carcass Surveys**

Survey teams walk the 2 km beach segment recording and collecting bird carcasses. The search area is defined as the beach from the water line up to 5 meters above the wrack line (the collection of organic debris deposited by the previous high tide) or, for very narrow beaches, the transition from beach to other habitat (eg. saltmarsh, mangrove, etc.). One person should cover the upper beach while the other covers the lower beach. It may be necessary to cover wide beaches in a zig-zag pattern to adequately cover the entire search area.

Within the search area, all bird carcasses are collected using the Carcass Collection Protocol. A bird carcass is defined as any dead bird, regardless of its

condition. **As little as a few feathers attached to skin fragments constitutes a bird carcass.**

Begin the Beach Carcass Survey by filling in the top portion of the *Bird Search Effort and Birds Collected Data Form*, making sure all fields are filled in correctly and legibly.

- Record the starting coordinates (Lat/Long) in decimal degrees (dd.mmmmm<sup>o</sup>, WGS 84) and the starting time. Note: Leave the INV field blank- this will be filled in by law enforcement.
- Circle the appropriate field unit (e.g. NRDA for beach survey crews).
- For each carcass found, fill in a SINGLE line on the data sheet. Identify to species/class, record the Lat/Long and create a GPS waypoint. The ID numbering convention is **001** for first bird found on survey, **002** for second, etc.
- Fill in remaining fields related to the carcass including: time of collection (24-hour), carcass location on beach (lower beach, wrack line, or upper beach), degree of oiling, degree of scavenging and age. If these fields are not assessed, complete the field with N/A.
- Photo-document the bird by writing the date, segment name (e.g., MS-02-01), state abbreviation, evidence seizure tag number, and bird ID (e.g. 001) on the whiteboard. Place the whiteboard next to the carcass or live bird and photograph.
- Collect the carcasses, using the Carcass Collection Protocol.
- Finish filling out the remainder of the data sheet. Record any comments in the Field Comments column, or in a yellow field notebook. The last two columns are for use by the Evidence Custodian. **DO NOT USE THESE COLUMNS FOR COMMENTS.**
- Record the ending coordinates and time (for a one-way search), or turn-around point for a round-trip search. If any new birds are found on the return trip, note 'R' within the comments section for that bird.

- If no carcasses are observed, write “no carcasses observed” across the individual lines on the data sheet and cross-out this section with a large (X). Write N/A in the Evidence Seizure Tag field.
- If you see work crews cleaning your survey segment or find evidence that the beach has been cleaned or groomed, fill out an *Information Needs Related to Beach Surveys and Grooming* form (see instructions below).
- When the survey is complete, both members of the survey team should review the data sheet and sign beside their printed names at the top of the form. DO NOT SIGN AT THE BOTTOM.

NOTE:

***Do not erase any incorrect entries on the data sheet. If you make an incorrect entry, cross it out with a single line and write your initials next to the crossed-out entry.***

### **Beach Surveys and Documentation of Beach Cleanup/Grooming Activity**

This assessment is completed on a segment ONLY when observers witness signs of, preparations for, or ongoing beach cleanup/grooming activity. The purpose of this assessment is to document actions that affect search conditions. Beach grooming is a common practice on beaches frequented by public. Other actions may be taken to remove oil or limit its spread. Such actions could potentially (1) interfere with operation of segment surveys; (2) alter distribution and detectability of dead birds; and (3) influence distribution of live birds during and after a beach manipulation event.

File out the top of the form with the segment name, date, survey crew members, and contact information. Record the lat/long coordinates of the two ends of the beach area subject to manipulation. This may be the entire 2 km survey segment for large-scale operations. Fill out the rest of the form to the best of your abilities. If beach manipulation is ongoing and the situation allows, you can attempt to meet and identify a crew foreman who might describe the operation or provide contact information (phone no. and/or email address) of someone who could. **SAFETY NOTE: Do not jeopardize safety of your crew by approaching any moving heavy equipment or by flagging down operators of moving equipment.**

## Data Form and Carcass Procedures

1. At the end of every day, check each data sheet to confirm that ALL data fields are complete.
  - DO NOT LEAVE DATA FIELDS BLANK; WRITE “N/A” WHEN APPROPRIATE. REMEMBER THE INV FIELD WILL REMAIN EMPTY.
  - Make sure you sign and date all data sheets.
2. If you collected any bird carcasses, they are evidence and must be handled accordingly. Deliver the carcass and the original *Beach Search Effort and Birds Collected Data* form to the Evidence Custodian at the appropriate Intake Center. At the Intake Center, make a copy of the *Beach Search Effort and Birds Collected Data* form to keep with the other forms for that survey segment. The Evidence Custodian will keep the original form, **you must keep a copy.**

For logistical reasons, some field crews may be instructed to transfer carcasses to a designated Evidence Custodian at a National Wildlife Refuge. As described above, the original *Beach Search Effort and Birds Collected Data* form must stay with the carcass. **Make a copy** and keep it with the rest of the survey segment data forms.

If there are no Intake Centers within a reasonable driving distance, you may send carcasses by FedEx (see FedEx Protocol). Make a copy of the *Beach Search Effort and Birds Collected Data* form to keep with the other forms for that survey segment. Place the original *Beach Search Effort and Birds Collected Data* form inside a gallon-sized Ziploc bag and place in the shipping cooler with the carcass. Make sure you complete the white Evidence Seizure Tag and include it with the carcass. Remember, **you must keep a copy** of the *Beach Search Effort and Birds Collected Data* form.

3. Scan all signed data sheets from one segment and save as a .pdf file to your computer hard drive. Use the following naming convention:

NRDA\_mmddyyyy\_segmentID\_USFWSteammemberlastname.pdf

Example: “NRDA\_05252010\_MSHR1-1NRDA\_matz.pdf”

4. Email a copy of each segment .pdf file to:

[DHMC252.BIRDNRDA.DATA.ERDC@gmail.com](mailto:DHMC252.BIRDNRDA.DATA.ERDC@gmail.com)

5. Approximately every three days, FedEx all of your data forms to the NRDA Bird Group at:

Homewood Suites Inn  
29474 North Main Street  
Daphne, AL 36526  
Blakely Conference Room 2  
ATTN: USFWS-NRDA BIRD

### **Reporting Injured or Oiled Wildlife or Deepwater Horizon Debris**

- If you find a live injured or oiled bird, you must call the Wildlife Incident Hotline, 866-557-1401. A Wildlife Response – OPS team will be assigned to collect the bird. You'll need a precise GPS location to give the hotline.
- If you find dead or injured wildlife other than birds, including turtles, dolphins, or fish kills, call the Wildlife Incident Hotline, 866-557-1401.
- If you find debris from the Deepwater Horizon, call 202-309-9559.