SeaRose FPSO crude spill

9 – 15 September 2008

Canadian Wildlife Service
Environment Canada – Atlantic Region
St. John's, Newfoundland

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Environment Canada Environnement Canada
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Canadian Wildlife Service, Environment Canada Report
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BACKGROUND

On Tuesday, 9 September 2008, an oil spill incident occurred offshore close to the northeastern shelf of the Grand Banks (46º 47'25"N, 48º 01'02"W) due to a failure in the off-loading system of the SeaRose FPSO. White Rose crude was discharged into the environment (final estimate of spilled volume was 4,470 litres) and sprayed onto the bow of the shuttle tanker Jasmine Knutsen (approximately 60 square meters of hull was contaminated).

No oiled birds had been reported since the onset of the spill. At 5:30 pm, Husky Energy informed Environment Canada that a potentially oiled Leach's Storm-Petrel had been captured offshore and was being flown to St. John's to be taken to the Petro-Canada rehabilitation facility for examination. Storm-Petrels are known to be attracted to lights on offshore platforms and vessels. However, in light of current events, offshore personnel felt that they should report the bird and have it examined. A thorough examination revealed no signs of oil and the bird was released later that evening.

CWS observers were not dispatched to the spill site due to poor weather at the time of the incident and the relative speed with which the discharged crude was dissipating.

In addition to their own data collected from the offshore through the Eastern Canada Seabirds at Sea (ECSAS) program (jointly funded by ESRF and CWS), EC requested the following information collected through Husky Energy's offshore seabird monitoring program to facilitate the assessment of birds at risk:

1) All bird observations from the White Rose field from 26 August to present;
2) If possible, similar observations from the Terra Nova field, spanning the same dates;
3) Bird observation data spanning the dates 2 Sep - 16 Sep (one week before and after the event), from all available fields in the Jeanne d'Arc Basin and across all years available.

On 6 October 2008, EC received the requested data from daily observations (3 surveys per day) between 2 and 16 September for the Terra Nova field spanning the years 1999-2008, and for the White Rose field spanning the years 2002-2008. EC also received information from bird observations (3 surveys per day) from daily observations conducted from platforms on the White Rose field (Henry Goodrich and Glomar Grand Banks) and the Terra Nova field, spanning the dates 26 August to 11 September 2008.

POTENTIAL IMPACT TO BIRDS AND SPECIES AT RISK

EC-CWS estimated seabird densities for a square area of 200 km x 200 km centered on the White Rose oil field using data collected under the ECSAS program between 2006 and 2008. The following species vulnerable to oil were observed in this area (densities ±

SD in brackets): murres (0.7 ± 2.7 km^2), Northern Fulmars (0.2 ± 0.8 km^2), shearwaters (1.3 ± 6.9 km^2) and storm-petrels (0.16 ± 0.9 km^2), totaling seabird densities of 2.36 vulnerable birds/ km^2. These data suggest that densities of birds vulnerable to oil are low this time of year in the oil production platforms (Figure 1). Older data collected under the former PIROP program also suggest that seabirds vulnerable to oil may not be present in great numbers this time of year in the vicinity of the oil fields, with a mean abundance of 1 to 10 birds per linear km (Lock et al. 1994). However, large concentrations of Greater Shearwaters may be present this time of year, particularly around long-term oil production sites (Baillie et al. 2005).

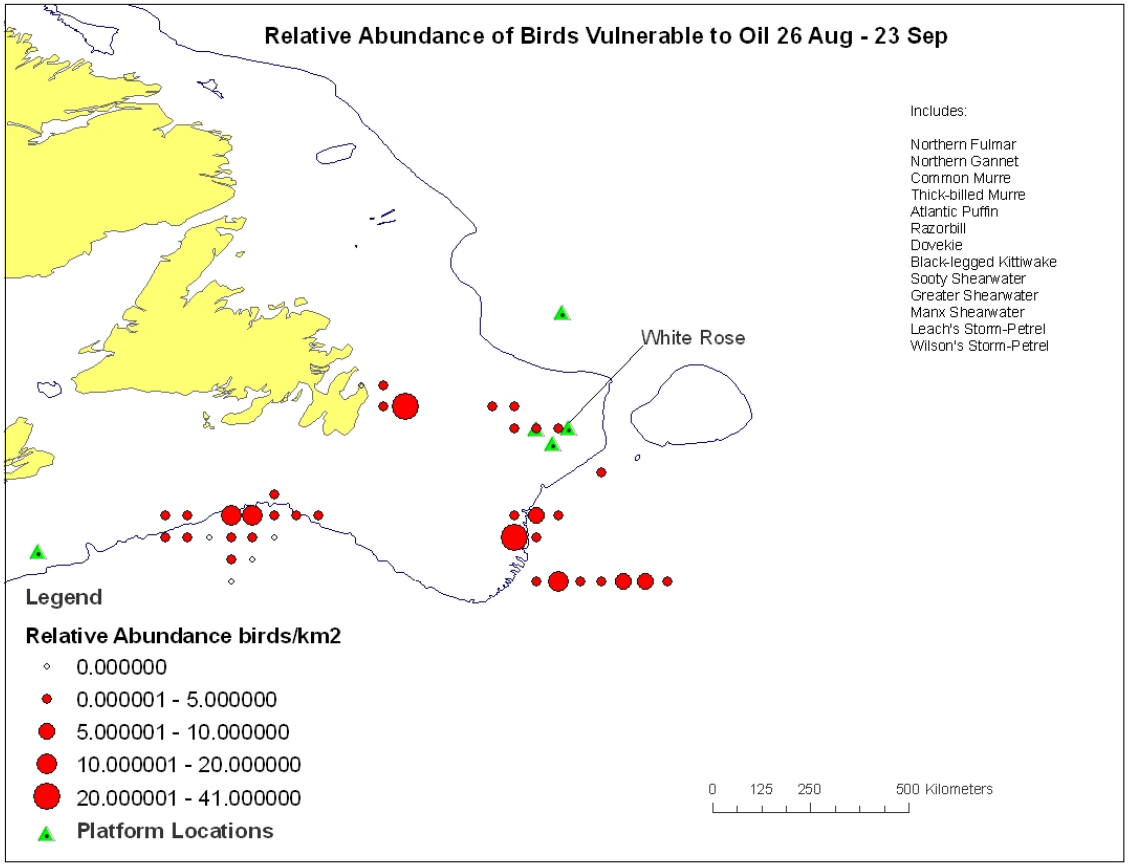

Figure 1. Relative abundance of birds (not corrected for distance) vulnerable to oil between 26 August and 23 September (2006-2008). Data collected through ECSAS program.

Densities of birds vulnerable to oil such as alcids (murres, puffins) and procellarids (fulmars and storm-petrels) are expected to be low on the eastern edge of the Grand Banks in August and September, as these birds are at the end of their breeding season and are just beginning their voyage to the offshore from their breeding grounds, with the exception of Greater and Sooty Shearwaters, which breed during our winters in the Southern Hemisphere and are expected to be present on the Grand Banks during our

summers. By September, however, breeding shearwaters have typically reached their southern breeding grounds, so it is likely that those present on the Grand Banks this time of year are non-breeding individuals (Huettmann and Diamond 2000). No species at risk are expected to be in the area this time of the year.

The data collected through Husky Energy's seabird monitoring program concur with the above observations. A total of 2622 birds were observed between 26 August and 11 September 2008 from the three platforms in both fields (total observation time = 39 hours). The majority (56%) were shearwaters (Greater, Manx, and Cory's), followed by Common Murres (22%), Northern Fulmars (19%), Herring and Greater Black-backed Gulls (2%), and Black-legged Kittiwakes (1%). The overall attendance pattern of seabirds around the platforms was low, however, attendance peaked with four large groups of shearwaters (300-400 individuals) observed between 28 August and 2 September, making up the bulk of all shearwaters recorded. No oiled birds were reported.

FOLLOW-UP ACTIVITIES

The lead agency for investigation of spill from Newfoundland and Labrador offshore platforms or rigs involved in exploration or exploitation of oil fields is the Canada – Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB). Their investigation is ongoing.

REFERENCES

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