

CASE STUDY 1

Example of wildlife transect survey. Excerpt from Stantec. 2011. *Canpotex Potash Export Terminal and Ridley Island Road, rail, and Utility Corridor. Wildlife Technical data Report. Final report.* Available at: Government of Canada. Impact Agency of Canada (<https://iaac-aeic.gc.ca/050/documents/53480/53480E.pdf>)

Beginning of excerpt

Wildlife Transects

Wildlife transect surveys were conducted to record the abundance and distribution of terrestrial mammals on Ridley Island.

Methods

Wildlife transects were conducted following protocols outlined in *Ground-based Inventory Methods for Selected Ungulates: Moose, Elk, and Deer* (MELP 1998b) and *Inventory Methods for Hares and Cottontails* (MELP 1998c). Six transects were located along the proposed road and rail line (3) and within and adjacent to the terminal footprint (3) (Figure 1 [*note, figure not included in this excerpt*]). Each transect was 500 m in length and was surveyed between 0730h and 1630h on June 10 and 12, 2010. Wildlife tracks, pellets, and game trails were recorded if observed within one meter of either side of the transect center line. The species, number, and age of sign was recorded where possible.

Results and Discussion

Four mammal and one bird species were detected during transect surveys; American marten, mule deer; porcupine, red squirrel and gadwall (Table 9; Figure 4). Most sign was of pellets (38%) or visual observations (22%), but also included game trails, feeding sites, and tracks. The number of wildlife detections were similar across transects. Mule deer were most common and accounted for 87% of observations. Their sign was recorded on all transects.

Table 9: Wildlife Species Recorded on Transect Surveys

Species	Transect 1	Transect 2	Transect 3	Transect 4	Transect 5	Transect 6	Total
Gadwall			1				1
American Marten				1			1
Mule Deer	4	3	5	6	5	5	28
North American Porcupine			1				1
Red Squirrel						1	1
Total	4	3	7	7	5	6	32

Several mammal species were also recorded incidentally around Ridley Island. These observations were recorded outside of transect surveys, often during surveys for other species. These included records of two species that were not recorded during standardized surveys; grey wolf and American beaver (Table 10).

Table 10: Incidental Observations of Mammals during 2009, 2010, and 2011 Surveys

Species	2009	2010	2011
Mule Deer		4	
Grey Wolf		2	
<i>Mustelid</i> species		1	
North American Porcupine	3	1	
American Beaver		2	
Red Squirrel		3	
Total	3	13	0

End of Excerpt

Questions to consider

1. The goal of the work was to “record the abundance and distribution of terrestrial mammals on Ridley Island.” Do you feel this objective was met?
2. Do you feel the effort was reasonable? Consider number of transects, length, width, and number of times assessed. What type of transect survey was it?
3. Do you think this survey, as described, provided representative data?
4. What are some ways that you could have made this assessment for mammals better?