



## *Native Prairie Speaker Series*

**Title:** Little oil well on the prairie: disentangling mechanisms to mitigate effects on grassland songbirds

**Speaker:** Paulson Des Brisay, MNRM Student, Natural Resources Institute, University of Manitoba

**Presentation Summary:**

As anthropogenic noise becomes more prevalent across habitats, its impacts on wildlife remain difficult to assess. To disentangle effects of industrial noise from confounding factors (i.e. well presence, human activity, roads), we developed a high-fidelity solar-powered broadcasting system to reproduce sound from wells in sites without wells. We are comparing these “noisy” sites with sites with no wells, sites containing broadcasting equipment that is turned off, sites with real and active wells, and sites with real wells that are turned off (silent); we are evaluating impacts of these treatments on abundance, nesting success, clutch size, age structure, body condition, stress physiology, adult and fledgling survival, communication, and parental care at nests of grassland songbirds.

**Biography:**

I received my BSc in Zoology at the University of Guelph in 2012. Completing my honours thesis, which examined the ambiguity of species limits using mitochondrial DNA in a cryptic, wide-spread ant, left me with an interest in factors that cause some species to not 'follow the rules'. Such species-specific responses can reduce the effectiveness of conservation efforts to mitigate the impacts of anthropogenic disturbance. My current masters research at the Natural Resources Institute is focused on applying methods from conservation physiology to determine why similar species may react differently to disturbance by linking settlement patterns, body condition, and glucocorticoids (stress hormones) in grassland songbirds in response to oil development.

**Website link:** <http://koperlab.wixsite.com/koperlab>

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