



## *Native Prairie Speaker Series*

**Title:** Habitat occupancy by breeding Pied-billed and Horned Grebes in Prairie Canada: correlates of pond use and breeding success

**Speaker:** Dan Routhier, Senior Wildlife Biologist, Stantec Consulting Ltd

**Summary:** Incorporating information about habitat use and success of breeding birds contributes to a more complete understanding of their ecology and distribution, and can also inform management strategies for species of conservation concern. We used occupancy data that accounted for imperfect detection from a two-year field study of two territorial waterbird species in southcentral Saskatchewan to explore correlates of pond use and breeding success. In Pied-billed and Horned Grebes, breeding habitat occupancy corresponded most closely to pond-specific factors rather than those operating at spatial scales beyond the local wetland basin. Pied-billed Grebes were more likely to occupy wetlands that were larger, had greater shoreline complexity, and had less cropland in the adjacent uplands whereas Horned Grebes were more likely to occupy wetlands with less emergent vegetation. These distinct microhabitat preferences could serve to limit interspecific competition. While there was no observable difference in pond occupancy rates between low and high wetland density landscapes, the latter areas contribute disproportionately more breeding habitat for grebes. Using naïve occupancy estimates, breeding success was similar for Horned and Pied-billed Grebes. Ongoing conservation initiatives that protect and restore wetland habitat in areas of the prairie and parkland ecoregions with high densities of semipermanent and permanent wetlands should improve long-term habitat security for breeding grebes, including Horned Grebes.

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**About the Presenter:** Dan Routhier is a senior wildlife biologist with Stantec Consulting Ltd. in Winnipeg, Manitoba where he works on environmental assessment and resource development projects across Canada, focusing on the technical and regulatory aspects of wildlife work. Dan grew up on a farm in southern Manitoba and obtained an undergraduate degree from the University of Manitoba, while working summers and contract positions with the Canadian Wildlife Service on waterfowl and species at risk programs. Dan completed a graduate degree at the University of Saskatchewan where he examined 1) the suitability of using existing continental waterfowl surveys for obtaining information on breeding grebes (<https://doi.org/10.1002/wsb.362>); and 2) correlates of pond use and breeding success by horned and pied-billed grebes in the Saskatchewan prairies (<https://doi.org/10.5751/ACE-01641-150203>). After relocating back to Manitoba, Dan worked for Ducks Unlimited Canada on their boreal research programs for two years before joining Stantec. Dan has supported wildlife fieldwork throughout western Canada and now focuses primarily on aiding clients navigate provincial, territorial, and federal regulatory requirements, particularly as it relates to migratory birds and species at risk.

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