

Appendix 1. Detection (ρ) and availability (ϕ) for 8 secretive marsh bird species as a function of seasonal, daily, and weather related covariates within two regions of southern Canada and the Great Lakes states, 2008 to 2014. Shown are predicted values from final best models with associated 95% confidence limits, except for date for Pied-billed Grebe, American Bittern, Sora, Virginia Rail, and Yellow Rail where only predicted values from final best models are shown for the Great Lakes-St. Lawrence region (solid line) and the Prairie region (dashed line). Missing panels indicate instances where the species was analyzed in only one region or the other, or instances where covariates did not appear in final best models. All other continuous variables were held at mean values, region was set to Great Lakes St. Lawrence, survey interval was set to the first 5-min passive listening period, and time of day was set to evening. See text for covariate definitions.

