Supporting Information. Sharp, S.J., K.J. Elgersma, J.P. Martina, and W.S. Currie. 2020. Hydrologic flushing rates drive nitrogen cycling and plant invasion in a freshwater coastal wetland model. Ecological Applications.

Appendix S1

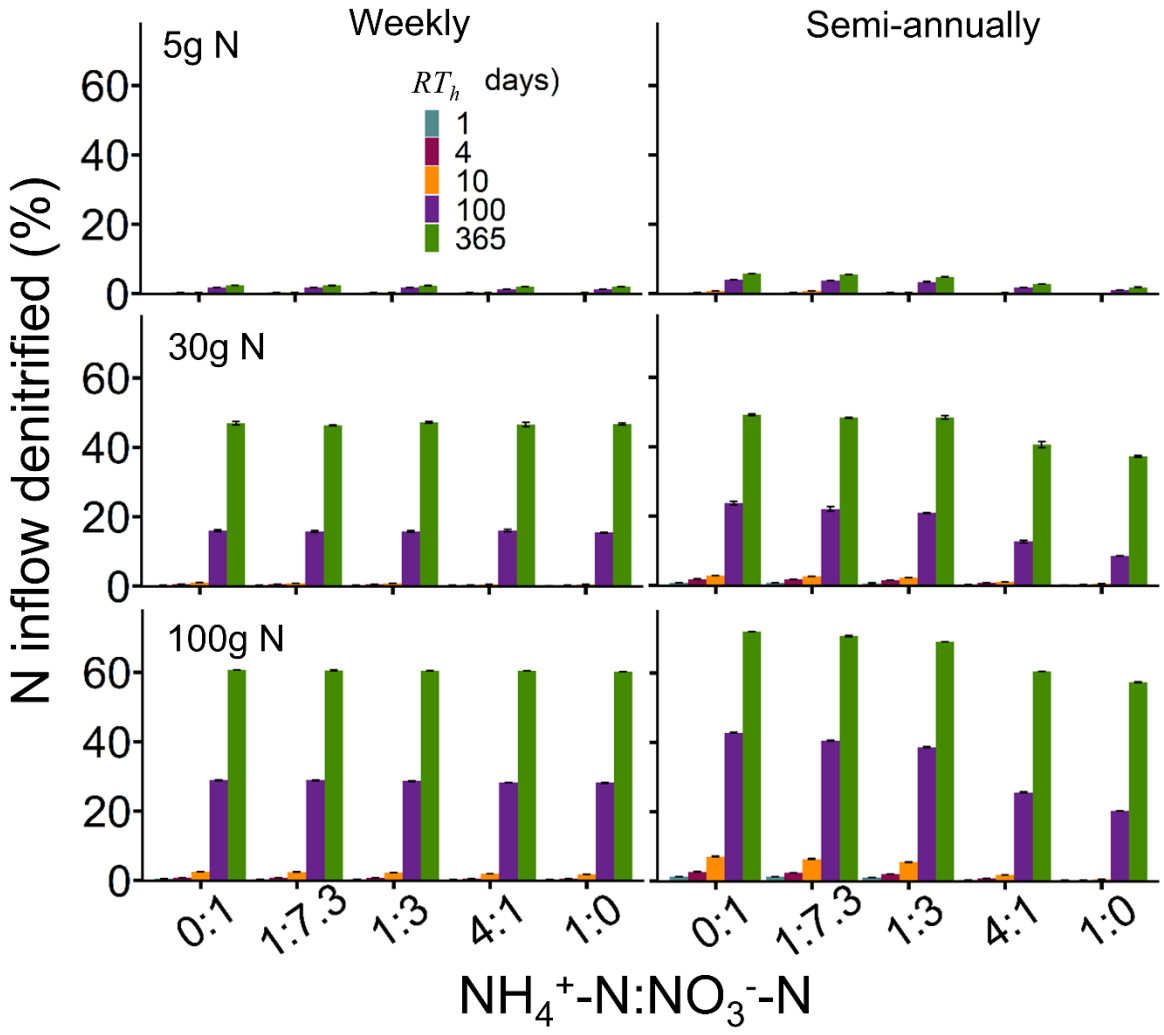

Figure S1. Percent of total annual N inflow into wetlands denitrified across a range of NH_4^+-N:NO_3^--N ratios. Ratios of 1:7.3, 1:3, and 4:1 reflect watershed N inputs for urban, high-intensity agriculture, and rural land use classes, respectively. Ratios of 0:1 and 1:0 represent hypothetical ammonium-only and nitrate-only N loading, respectively. RT_h = water residence time.

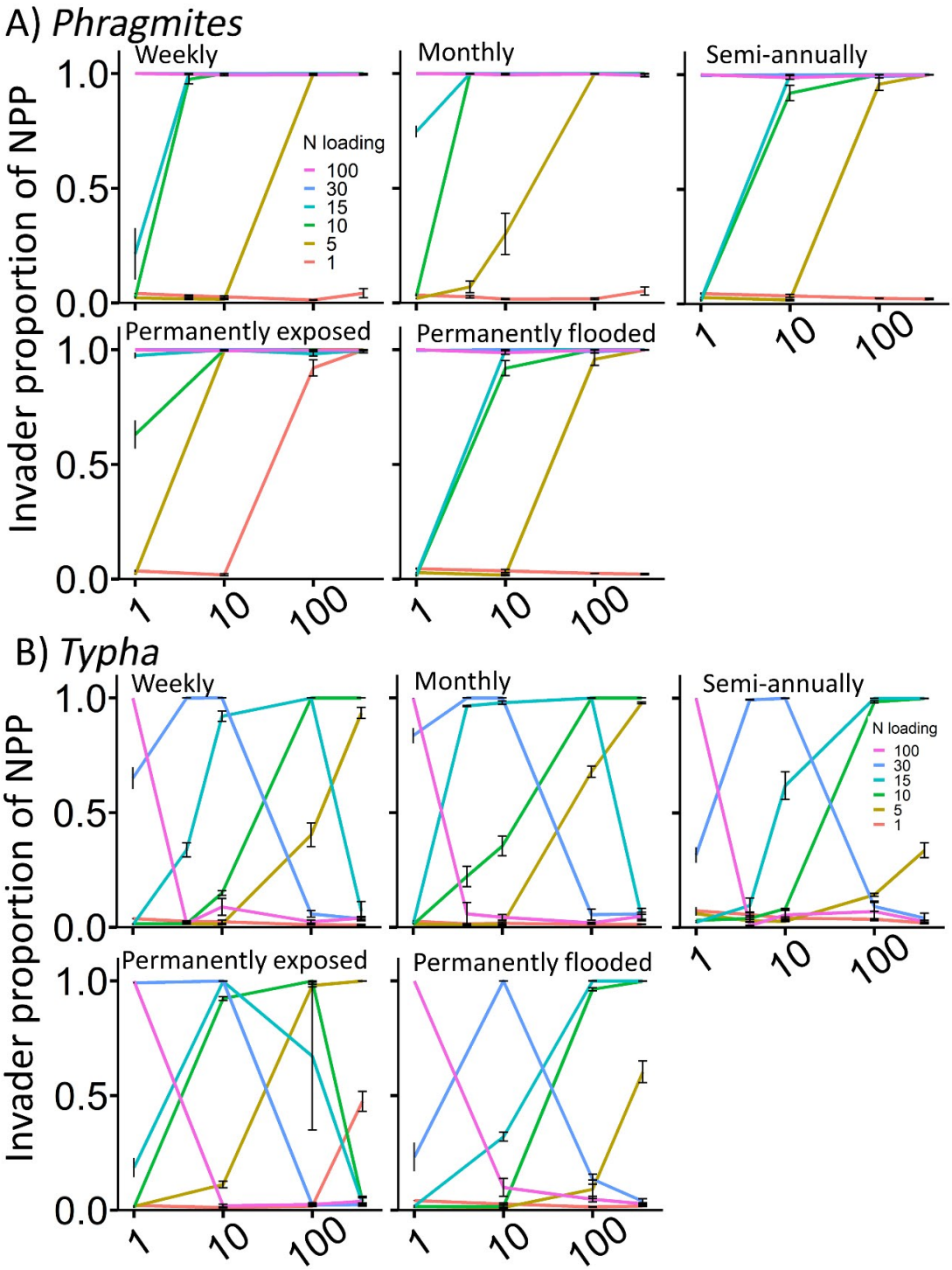

Figure S2. Invader proportion of NPP/Total NPP in (a) *Phragmites* and (b) *Typha* invaded wetland simulations. Different panels represent different variable (weekly, monthly, and semi-annually) and constant (permanently exposed and flooded) hydroperiods. Different colored lines represent various levels of N loading in gN m^{-2} y^{-1}

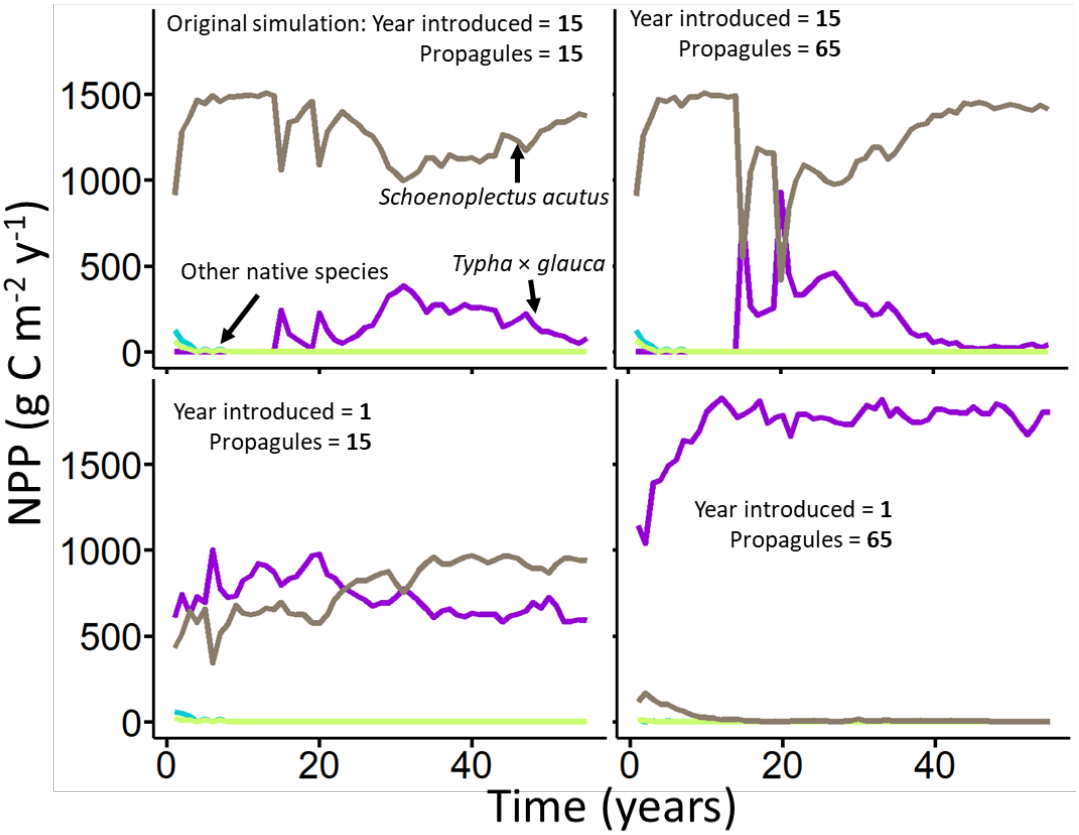

Figure S3. Results of targeted Mondrian simulations designed to test resilience of native community to *Typha* invasion. Year of introduction and number of propagules introduced were manipulated to identify mechanisms for community resistance to invasion.