**Chapter 1**

*Historical environmental data*

To reduce autocorrelation among the covariates, I used mean temperature difference between the growing and breeding seasons as a second temperature variable rather than including both mean growing and breeding season temperatures, as they were highly correlated (r = 0.85) with each other.

**Chapter 4**

**Additional relationships with overall species and guild richness**

At least 4 of the 9 controlling environmental variables were statistically significant for all of the guilds (Table 3). Topographical factors had significant influence on overall species richness and all 4 guilds; all richness metrics responded negatively to elevation, overall species richness and 2 guilds responded negatively to aspect, and forest generalist guild richness responded positively to TPI. Forest age was a significant predictor variable for overall species richness and 2 guilds, with higher expected mean early-successional / edge-associated guild richness associated with younger forest and higher expected mean forest-interior guild richness associated with older forest. Habitat type (forest vs. shrub) within 50 m was significant for overall species richness and 3 of the 4 guilds; as expected, forest-interior and forest-gap guild richness had positive relationships with forest cover, and early-successional / edge-associated guild richness had a positive relationship with shrub cover. For forest type (mixed vs. coniferous) within 50 m, overall species richness and 3 of the 4 guilds responded negatively to mixed forest and 2 guilds also responded negatively to conifer forest. Finally, the proportion of all forest within 1 km negatively affected early-successional / edge-associated guild richness but did not have a significant influence on overall species richness nor any of the other guilds.

**Additional relationships with focal species abundance**

At least 2 of the 9 controlling environmental variables were statistically significant for all of the focal species (Table 3). Of the 3 topographical factors, elevation was most frequently significant, with a negative effect on 8 focal species. Habitat type (forest vs. shrub) and forest type (mixed vs. coniferous) within 50 m also tended to be important for most of the focal species. The 3 early-successional / edge-associated species responded negatively to all forest cover and/or mixed forest cover, and chestnut-sided warblers responded positively to shrub cover. The 4 forest-interior species and 4 forest-gap species tended to respond positively to all forest cover and negatively to both mixed forest and conifer forest; wood thrush abundance was additionally negatively affected by shrub cover. Finally, 3 forest-interior and forest-gap species and 1 forest generalist species were significantly positively influenced by the proportion of all forest within 1 km.

**Additional relationships with focal species nest success**

Only 1 of the 2 controlling environmental variables were statistically significant for just 1 of the 6 focal species for nest success (Table 4). Nest success of wood thrushes during the brooding period was significantly negatively affected by harvest history, such that the probability of brooding success was higher in areas that had not been harvested within 20 years.