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**Abstracts**

**SPECIAL SECTION: CHOICES AND CONSEQUENCES OF AVIAN HABITAT SELECTION**

## CONSEQUENCES OF HABITAT UTILIZATION BY NEST PREDATORS AND BREEDING SONGBIRDS ACROSS MULTIPLE SCALES IN AN URBANIZING LANDSCAPE

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*Abstract.* Nest predation may influence habitat selection by birds at multiple spatial scales. We blended population and community ecology to investigate this possibility for 15 species of forest songbirds and their diurnal nest predators (corvids and sciurids) in 28 1 $km^2$ sites near Seattle, Washington, from 1998 to 2004. We determined whether songbirds were positively or negatively associated with nest predators at three spatial scales, and whether their co-occurrence affected reproductive success. At the largest 'neighborhood' scale (1 $km^2$ areas that included suburban and exurban development and second-growth forest remnants), nest predators and their prey were positively or negatively correlated according to general species-specific habitat associations. At the intermediate 'forest patch' scale (among remnant forested areas 0.5 to 70 ha), associations between predators and prey were generally weak. At the smallest 'within patch' scale (multiple 50 m radius survey plots within each forest patch), some songbird species avoided areas with greater predator use, particularly by Steller's Jays (*Cyanocitta stelleri*). Failed nests and territories tended to be in locations of higher predator occurrence (especially of corvids) than successful ones, but at the largest 1 $km^2$ neighborhood scale relative abundance of nest predators was not correlated with the fate of nesting attempts or annual reproductive success. Reproductive success was generally high, with 52% of all nests and 49% of all territories fledging at least one young (for all species and years combined). Nest predation influenced some species' use of resources, but was not a strong influence on overall reproductive success or community structure.

*Key words: corvid, habitat selection, nest predation, reproductive success, spot mapping, urban ecology, utilization distribution.*