Cat abundance

Information on the relationship between cat abundance, urbanization and other human-related influences will ultimately be necessary to understand and manage impacts of cats on native wildlife. Previous studies have arrived at conflicting conclusions on how cats vary along the urban-rural gradient. Murray et al. (2010) found significantly more homeowners responding to a questionnaire in rural and “semi-urban” areas owned cats than in urban areas, while Sims et al. (2007) found a significant increase in cat density with housing density, also using questionnaires. Flockhart et al. (2016) used transects to estimate cat density, and found a similar result—that cat density increased with building density and distance from wooded areas. However, they did not test for a quadratic relationship with either measure of urbanization. I found strong evidence that cat density in the Washington, D.C. region is higher at intermediate levels of urbanization. Two methods for detecting cats, transect counts and motion-sensor cameras, arrived a very similar best models for explaining cat response to urbanization, despite relatively little overlap in which sites had cats detected (both methods: n=15, one method: n=19, neither: n=9).

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