

# Eastern gray squirrel crypsis

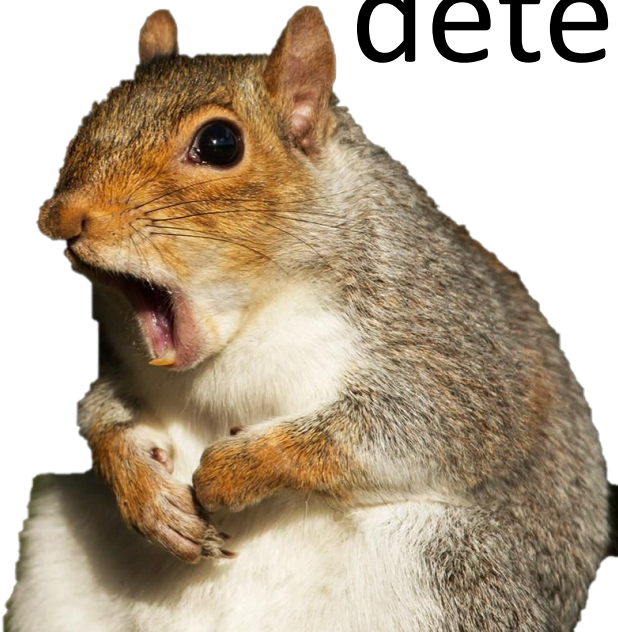
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Jess Proctor



Image: Elizabeth Hunter

In ecology, crypsis is the ability of an animal or a plant to avoid observation or detection by other animals.



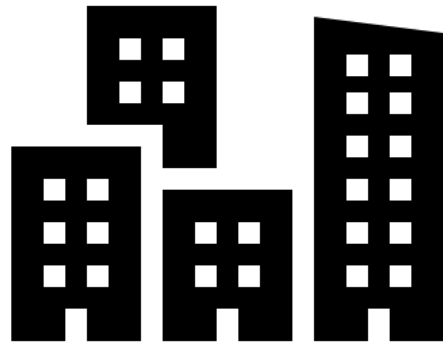




<https://www.bostonglobe.com/metro/2018/09/24/squirrels-made-squirrel-population-midway-inprecedented-boom/2018-09-24/story.html>

# Adaptive vs. Non-adaptive evolution

Does crypsis impact the fitness of individuals across urban and rural habitats?



# Measuring crypsis

1) Detection time

Does it take longer to detect a morph in certain environment?

2) Reflectance value

Quantitative measurement of how well a squirrel matches its “background” environment

3) Predation rates

If there is a difference in crypsis, does it impact fitness?

# Detection times

Downtown  
Urban roads  
Yards  
Parks/Cemeteries  
Rural roads  
Secondary Forest  
Old Growth Forest

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Urban-rural gradient











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**Quantitative measurement of how well a squirrel matches its “background” environment**

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**If there is a difference in crypsis, does it impact fitness?**

# Reflectance values



# Measuring crypsis

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Quantitative measurement of how well a squirrel matches its “background” environment

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**If there is a difference in crypsis, does it impact fitness?**

# Predation rates



# Questions?



<https://kidadl.com/funnies/jokes/best-squirrel-jokes-that-are-just-nuts>