Determining the Mechanisms Limiting Amphibian Distributions in Urban Areas

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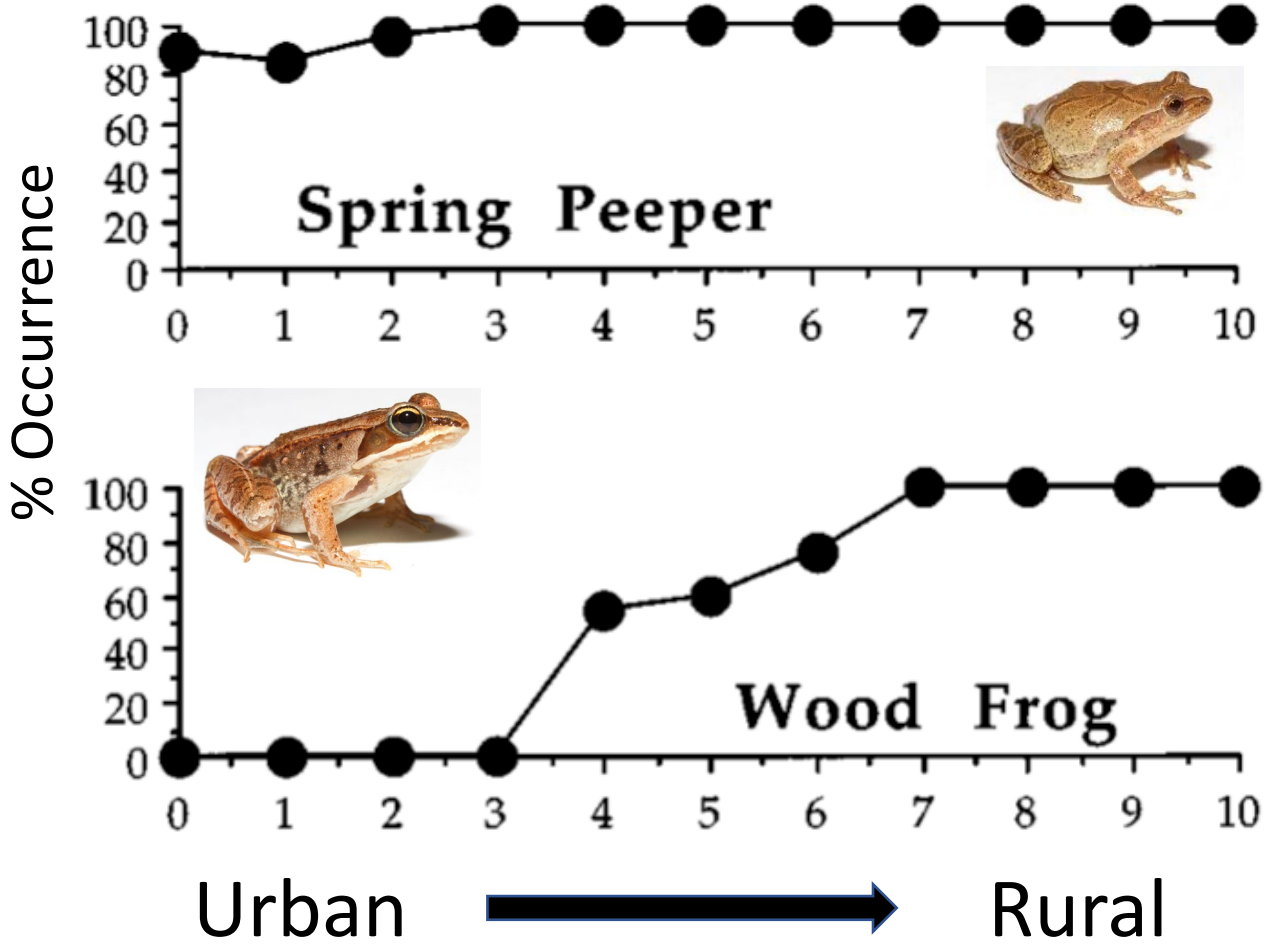
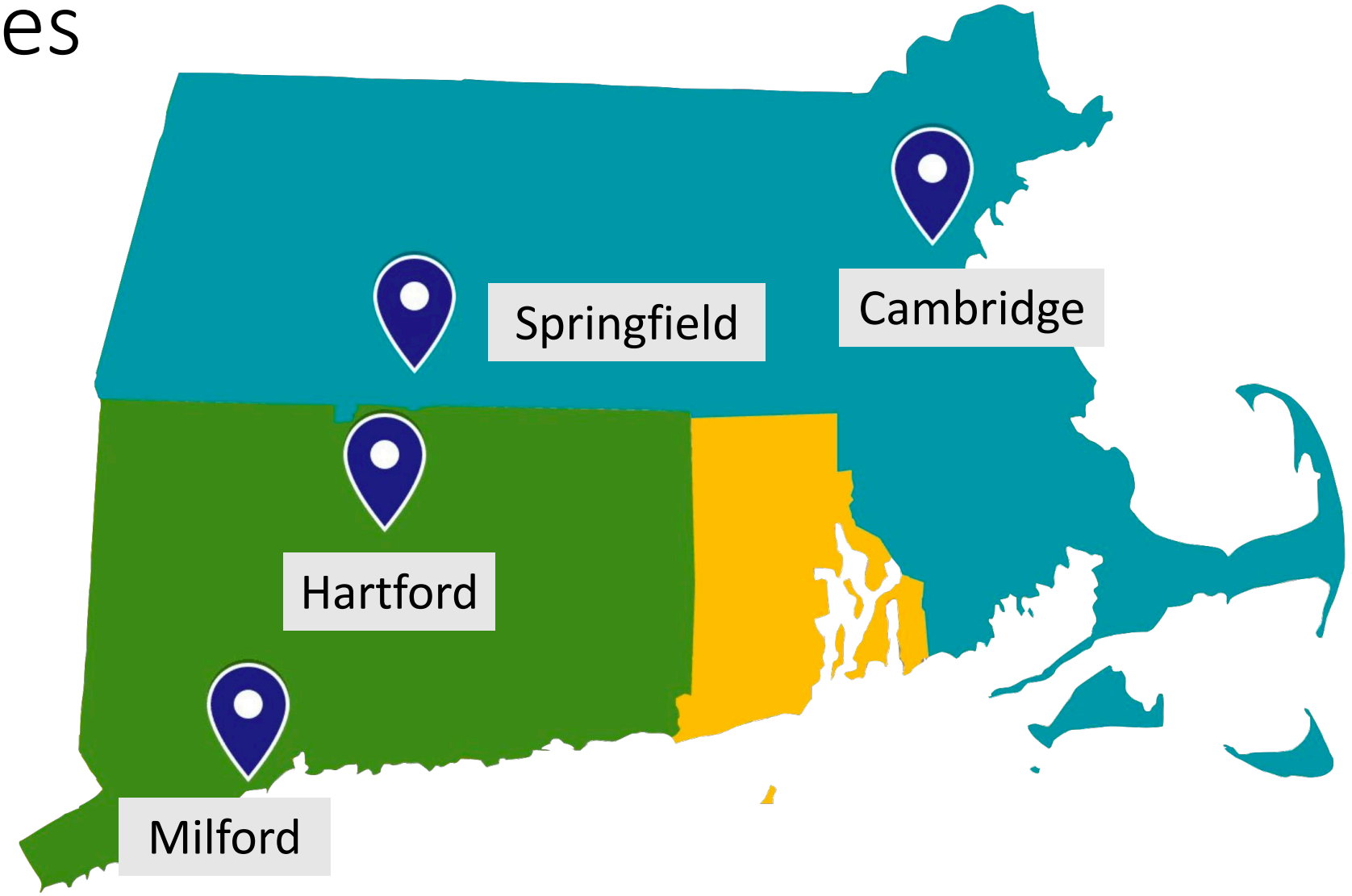
Species have varying sensitivities to urbanization, likely depending on:

- Hydroperiod requirements
- Dispersal ability
- Habitat flexibility



Adapted from Gibbs 1998

Focal Cities



Milford (CT)

Urban
Milford

- Spring peepers

Rural
Orange

- Spring peepers
- Wood frogs

Hartford (CT)

Urban
Hartford, East Hartford

- Green frogs
- American toads

Rural
West Hartford

- Spring peepers
- Wood frogs
- Spotted salamanders
- Gray tree frogs
- Green frogs

Cambridge (MA)

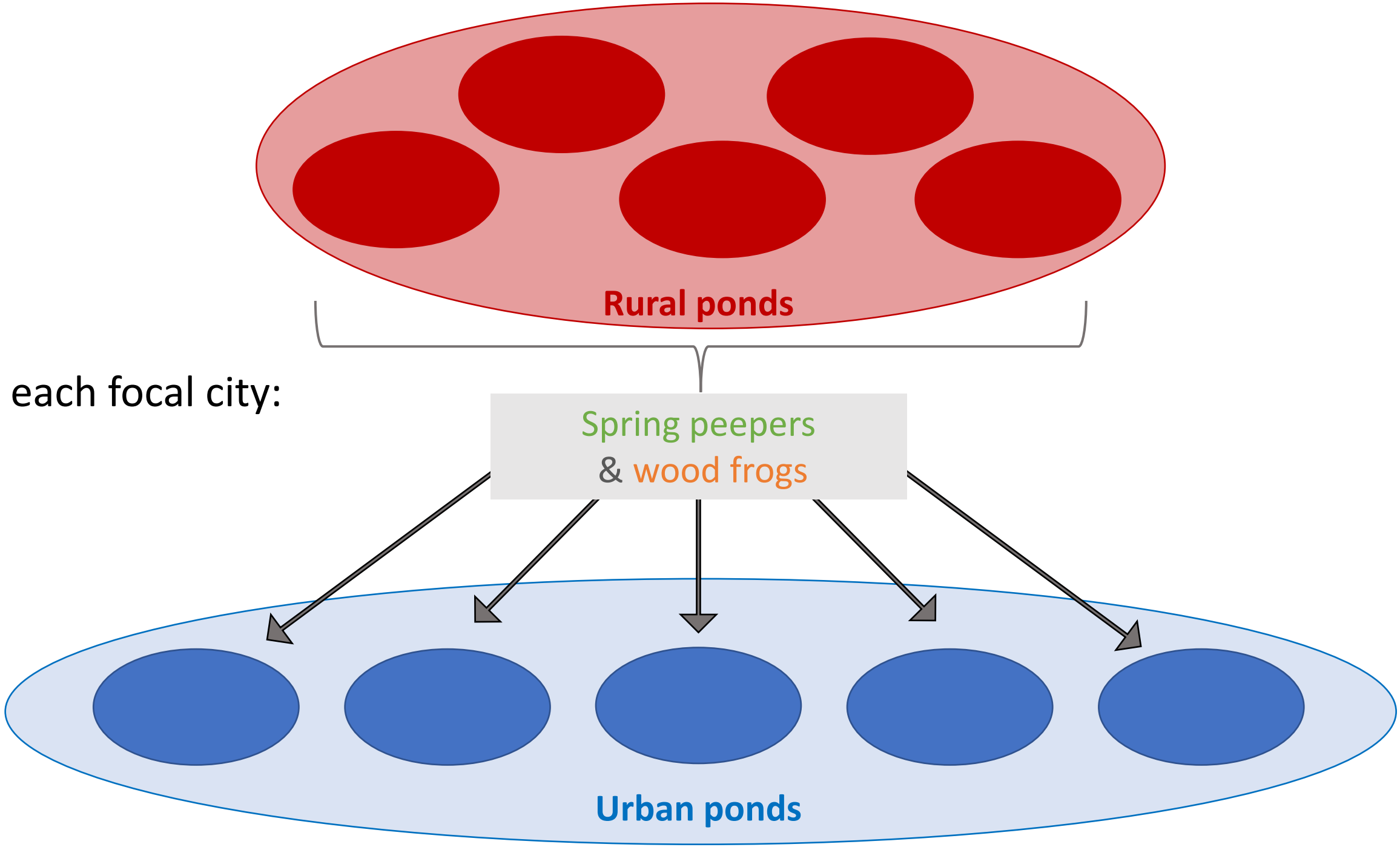
Urban
Cambridge, Arlington

- Bullfrogs

Rural
Weston, Wayland

- Spring peepers
- Wood frogs
- Spotted salamanders
- Green frogs
- American toads

For each focal city:

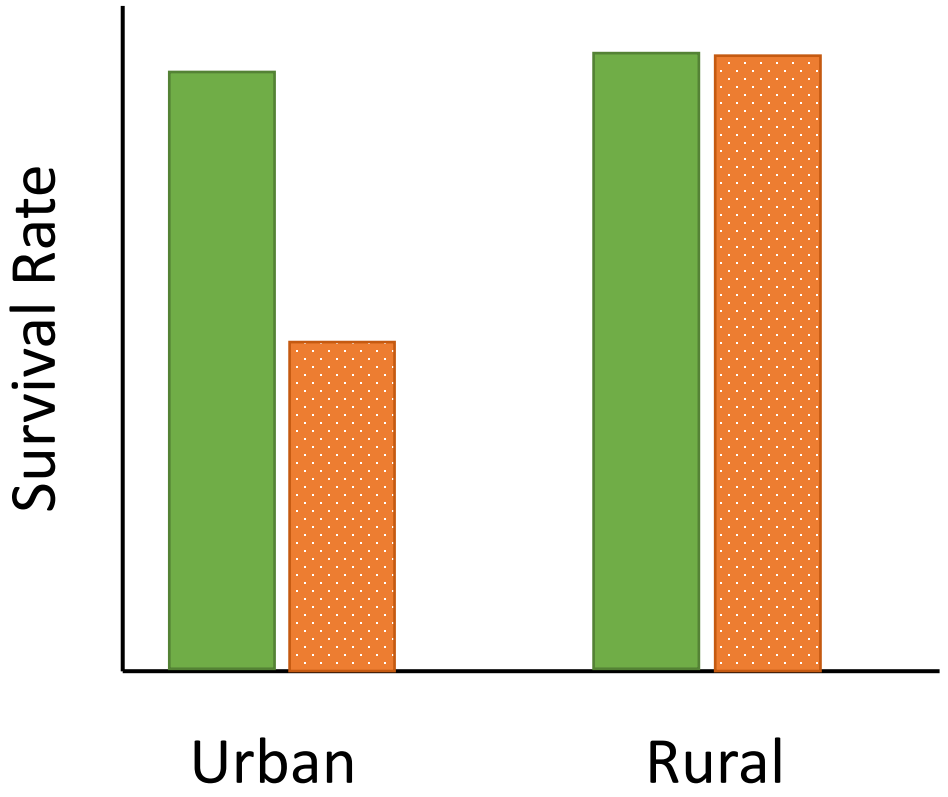


Predicted Results

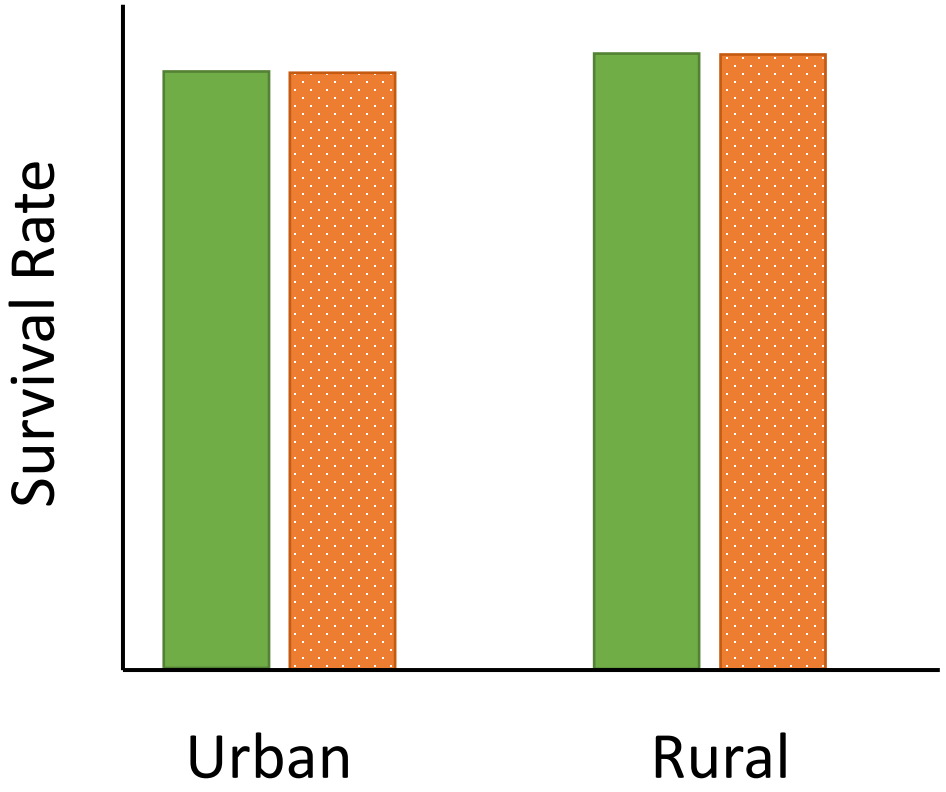
Spring peepers

Wood frogs

Problem: Poor terrestrial habitat quality



Problem: Dispersal limitation



Conservation Implications

Poor habitat quality → restore habitat

Dispersal limitation → reintroductions, corridors

Thanks for listening!

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