

Hypothesis:

Male and female juvenile North American red squirrels *Tamiasciurus hudsonicus* differ in their likelihood of acquiring a territory and surviving their first winter.

Predictions:

- One sex (male or female) might have a higher likelihood of acquiring a territory.
- Survival rates might be affected by sex due to differences in territorial acquisition, foraging, and resource allocation.

Description of Data Source:

The study aimed to better understand the effect of timing of territory acquisition on North American red squirrels juvenile overwinter survival and mediating sources of mortality. Data was collected over 27 years to assess the potential benefit of holding a territory before autumn on survival and its effect on the susceptibility of a juvenile to predation or low temperatures overwinter.

From the data set, we plan to use columns sex, survived_200d, owner, growth, Std. BD, z.cones, and z.temp to identify the difference between male and female juveniles. This is crucial for understanding the biology and population dynamics of local red squirrel populations. By studying these sex-based differences, we can gain insights into how males and females acquire territories, survive, and grow, which in turn helps us understand the structure of the population, such as the ratio of males to females and their respective roles in reproduction and resource use. This knowledge is valuable for drafting effective conservation and management policies aimed at protecting and sustaining red squirrel populations.

Dataset:

<https://datadryad.org/stash/dataset/doi:10.5061/dryad.q2bvq83q0>

Hendrix, J. G., Fisher, D. N., Martinig, A. R., Boutin, S., Dantzer, B., Lane, J. E., & McAdam, A. G. (2020). Territory acquisition mediates the influence of predators and climate on juvenile red squirrel survival. *Journal of Animal Ecology*, 89(6), 1408–1418. <https://doi.org/10.1111/1365-2656.13209>