

Summary Table - Longevity

GROUP 2 - Chrissy, Anjini, Jeremy

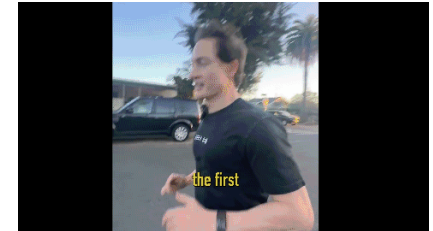
Phenomenon: 100 Animal Lifespans

Guiding question: What causes animals to have different lifespans?

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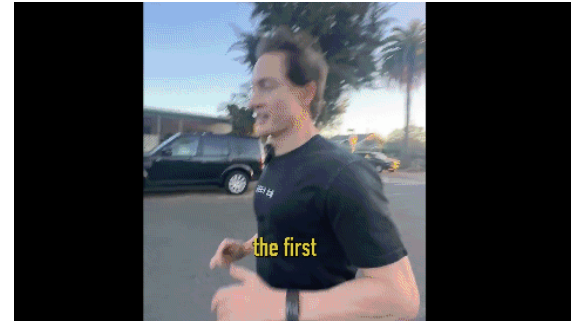
[Final Model](#)



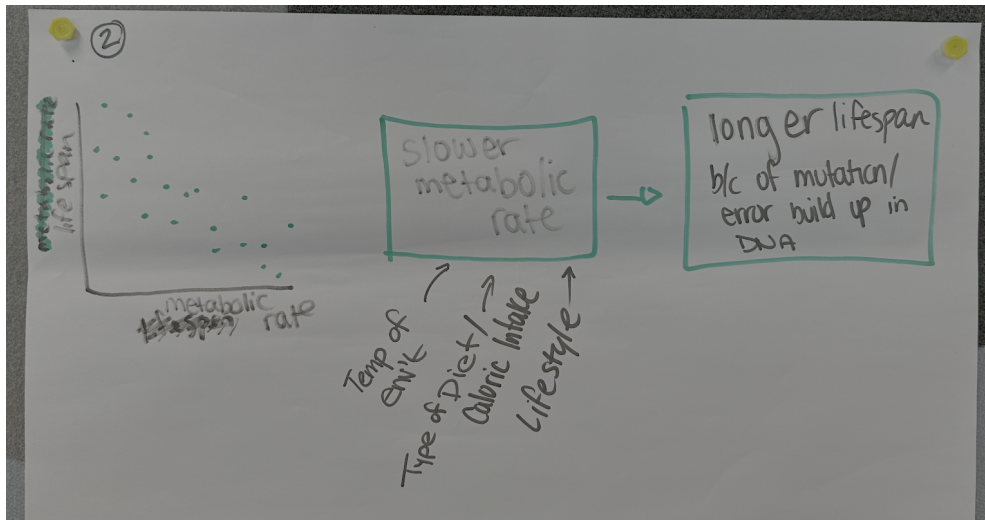
Supporting phenomenon	Link to work	What we did	What we figured out	How does this connect to animal lifespans ?
Longevity Cards	Link	We looked at the house mouse, virginia opossum, and the bald eagle. We also looked at several data sets on diet type and habitat type	The smaller animals lived shorter, weight not important, all live in varied temperatures, we noticed the opossum had an unusually short life spam compared to size The omnivores lived shorter Big marine animals lived super long	Diet may impact lifespan but there seemed to be no significant difference between herbivores and carnivores (statistically none based on SD), omnivores had a shorter lifespan. All categories had low and high end of lifespan Habitat was similar, with marines living longer. Some habitats didn't have enough data to make a true claim. Larger animals live longer than smaller animals in general
Lifespan Oddballs	Link	We looked at data on size and lifespan	Most organisms follow a trend of bigger lives longer Some exceptions to the rule e.g. a bat, salmon, naked mole rat	The larger, the longer lived

Cycles	Link	We used little cards to put together the life cycle of galapagos tortoises	We figured out tortoises are slow - so energy expenditure is low and predation is lacking	Lack of predators helps increase lifespan Using less energy, leads to longer lifespan
French Bulldogs	Link	We sorted dogs based on parents and looked at data - smaller dogs live longer	Growth hormones lead to larger sizes, which are correlated to shorter lifespans Are the “big dogs” much larger than the “average” should be?	Hormones impact longevity Within a species, the biggest may not be the longest lived Domestication and removal of predators likely favors the smaller size, but in nature, that may not be the case
Leg Regeneration	Link	Salamanders can regenerate	Cells undergo differentiation, and cells replicate and divide	Organisms that are better at cell regeneration/healing live longer
The Hayflick Limit	Link	We saw data on Hayflick limit and cell divisions maximums	Cells have a limit to how many times they can divide before they no longer have telomeres and begin damaging DNA	The longer an organism’s cells can divide, the longer it can live
Suicidal Mating	Link			
Supertasters	Link			
Turquoise Killifish and Bigmouths	Link			

Create a causal model that answers the following question
What causes animals to have different lifespans?



Initial Model



Final Model

Longevity Cards

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Show your work below (i.e. text, model images, questions, data etc.)

Lifespan Oddballs - [Back to summary table](#)

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Cycles - [Back to summary table](#)

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Leg Regeneration - [Back to summary table](#)

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Hayflick Limit - [Back to summary table](#)

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Suicidal Mating

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Supertasters

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Turquoise Killifish and Bigmouths - [Back to summary table](#)

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