Brown anole males live shorter lives than females.

Preliminary evidence suggests the sexes may age differently.

Sex-specific mortality and senescence in a wild population of brown anole lizards

Introduction:
• Classic aging theory predicts that senescence will be more rapid when the probability of surviving to old age is low.
• We are testing aging theory as an explanation for sex differences in mortality and lifespan that occur within populations.
• We predict that senescence will occur faster for the sex (males) that experiences a higher rate of extrinsic mortality.

Methods:
• Mark Recapture of 6,591 individuals tracked from hatching to death, through near-complete sampling of a closed island population 4 times/year, 2015-2019
• Body condition was measured as the residuals of the regression of Log Mass on Log Body Length.
• Telomere length was assayed with Real-Time qPCR using DNA extracted from nucleated red blood cells (O’Callaghan and French 2011).

Results:
Males have greater mortality and shorter lifespans than females.

Males suffer a decline in body condition with age that females do not.

Pilot study shows no sex difference in telomere length.

Discussion:
• Wild males have increased mortality and shorter lifespans than wild females.
• Preliminary results are mixed for the prediction that males will senesce more rapidly than females.
• Future direction #1 is to compliment these cross-sectional analyses with a longitudinal study in the field.
• Future direction #2 is to conduct longitudinal studies in captivity to test whether sex differences in mortality and senescence persist.