**Lizard Cold Tolerance – Group Activity Preparation**

To prepare for our group activity, do the following:

1. Read this short paper from Science magazine (3 pages) by Shane Campbell-Staton et al. - [Winter storms drive rapid phenotypic, regulatory, and genomic shifts in the green anole lizard](https://lososlab.oeb.harvard.edu/files/lososlab/files/campbell-staton_et_al._science._2017.pdf)

*Note: This paper is in the format of one of the world's premier science journals, Science Magazine, which encourages fairly short papers, and thus relegates a lot of the details of the methods to online supplementary material (while providing enough information in the paper itself to understand the results and conclusions). It deviates from the typical scientific paper format of Introduction, Methods, Results, and Discussion as it has a more narrative structure. If you are interested in the extra info that is referred to, find it here:* [*supplementary material*](http://www.sciencemag.org/content/357/6350/495/suppl/DC1)*.*

*Also note: Don't get too bogged down in the details of the gene expression component of the paper (or worry about trying to interpret Figures 3 and 4) - that's beyond what you would be expected to understand for this course. The commentary below provides some nice summary, though.*

2. Read this short commentary (2 pages) on this paper by Peter H. Grant - [Evolution, climate change, and extreme events](https://static1.squarespace.com/static/55f2d2a7e4b0dbda5ff237ad/t/5997683ce58c62e2fe7f34b4/1503094845833/451.full.pdf).

3. Watch this video clip of Dr. Campbell-Staton explaining his research:

[](https://www.youtube.com/embed/FLcLHyk-18k?feature=oembed)

4. Listen to this short podcast clip interviewing Dr. Campbell-Staton:

[https://www.scientificamerican.com/podcast/episode/cold-snap-shapes-lizard-survivors/](https://www.scientificamerican.com/podcast/episode/cold-snap-shapes-lizard-survivors/%20)

If you are curious, check out this website to learn more about Dr. Shane Campbell-Staton’s other research projects, including how poaching may affect tusk morphology in elephants and how city anoles are adjusting to urban heat islands: <https://www.campbellstaton.com/>