## Likely good choices

Martin, S., Youngentob, K. N., Clark, R. G., Foley, W. J., & Marsh, K. J. (2020). The distribution and abundance of an unusual resource for koalas (Phascolarctos cinereus) in a sodium-poor environment. *Plos one*, *15*(6), e0234515.

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0234515>

The authors analyse the relationship between sodium levels in Eucalyptus trees and the presence of bark being chewed by koalas.

Dinnage, R., Simonsen, A. K., Barrett, L. G., Cardillo, M., Raisbeck‐Brown, N., Thrall, P. H., & Prober, S. M. (2019). Larger plants promote a greater diversity of symbiotic nitrogen‐fixing soil bacteria associated with an Australian endemic legume. *Journal of Ecology*, *107*(2), 977-991.

<https://besjournals.onlinelibrary.wiley.com/doi/abs/10.1111/1365-2745.13083>

(not open but can be accessed at the library)

<https://datadryad.org/stash/dataset/doi:10.5061/dryad.37nh37f>

The authors analyse associations between environmental factors, tree size, and genetic diversity in *Acacia acuminata*. I would not analyse the full genetic data but rather use the summary data to explore the relevant statistical relationships.

Ahmad Rashid, F. A., Scafaro, A. P., Asao, S., Fenske, R., Dewar, R. C., Masle, J., ... & Atkin, O. K. (2020). Diel and temperature driven variation of leaf dark respiration rates and metabolite levels in rice. *New Phytologist*.

<https://nph-onlinelibrary-wiley-com.virtual.anu.edu.au/doi/full/10.1111/nph.16661>

The authors performed an experiment growing rice at different temperatures and measured leaf respiration at different times of day.

McLachlan, J. R., & Magrath, R. D. (2020). Speedy revelations: how alarm calls can convey rapid, reliable information about urgent danger. *Proceedings of the Royal Society B*, *287*(1921), 20192772.

<https://royalsocietypublishing.org/doi/10.1098/rspb.2019.2772>

<https://datadryad.org/stash/dataset/doi:10.5061/dryad.ns1rn8pp6>

The authors investigated the response of *Phylidonyris novaehollandiae* to alarm calls, i.e., how quickly they respond, how they responded.

McLean, N. M., van der Jeugd, H. P., Van Turnhout, C. A., Lefcheck, J. S., & Van de Pol, M. (2020). Reduced avian body condition due to global warming has little reproductive or population consequences. *Oikos*, *129*(5), 714-730.

<https://onlinelibrary-wiley-com.virtual.anu.edu.au/doi/full/10.1111/oik.06802>

<https://datadryad.org/stash/dataset/doi:10.5061/dryad.zs7h44j56>

The authors analysed body condition for 19 bird species at 80 sites over 21 years in the Netherlands to investigate the impact of climate.

Sharpe, L., Cale, B., & Gardner, J. L. (2019). Weighing the cost: the impact of serial heatwaves on body mass in a small Australian passerine. *Journal of Avian Biology*, *50*(11).

<https://onlinelibrary.wiley.com/doi/abs/10.1111/jav.02355>

<https://datadryad.org/stash/dataset/doi:10.5061/dryad.866t1g1m1>

The authors monitored a population of *Microeca fascinans* during a series of heatwaves to assess the impact of climate on change in body mass.

Lindenmayer, D. B., McBurney, L., Blair, D., Wood, J., & Banks, S. C. (2018). From unburnt to salvage logged: quantifying bird responses to different levels of disturbance severity. *Journal of Applied Ecology*, *55*(4), 1626-1636.

<https://besjournals.onlinelibrary.wiley.com/doi/full/10.1111/1365-2664.13137>

<https://datadryad.org/stash/dataset/doi:10.5061/dryad.24t5j04>

The authors analysed data on the response of birds in *Eucalyptus regnans* forests to wildfires, logging, etc..

Westgate, M. J., Scheele, B. C., Ikin, K., Hoefer, A. M., Beaty, R. M., Evans, M., ... & Driscoll, D. A. (2015). Citizen science program shows urban areas have lower occurrence of frog species, but not accelerated declines. PloS one, 10(11), e0140973.

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0140973>

<https://datadryad.org/stash/dataset/doi:10.5061/dryad.75s51>

The data are from a citizen science project collecting surveys of a number of frog species around the ACT and surrounds.

## Possible options

Gardner, J. L., Amano, T., Peters, A., Sutherland, W. J., Mackey, B., Joseph, L., ... & Symonds, M. R. (2019). Australian songbird body size tracks climate variation: 82 species over 50 years. *Proceedings of the Royal Society B*, *286*(1916), 20192258.

<https://royalsocietypublishing.org/doi/10.1098/rspb.2019.2258#d3e1700>

<https://rs.figshare.com/collections/Supplementary_material_from_Australian_songbird_body_size_tracks_climate_variation_82_species_over_50_years_/4735970>

The authors analysed body size in museum specimens of 82 species of passerine birds over time to investigate the impact of climate change. The data are perhaps already too clean?

Hajduk, G. K., Walling, C. A., Cockburn, A., & Kruuk, L. E. B. (2020). The ‘algebra of evolution’: the Robertson–Price identity and viability selection for body mass in a wild bird population. *Philosophical Transactions of the Royal Society B*, *375*(1797), 20190359.

<https://royalsocietypublishing.org/doi/10.1098/rstb.2019.0359>

<https://datadryad.org/stash/dataset/doi:10.5061/dryad.3ffbg79dq>

The authors model survival of *Malurus cyaneus* using a variety of predictors including genetic relatedness/inbreeding. It has R code directly – maybe this isn’t ideal?

[data not yet downloaded]

## Interesting but probably too difficult / not appropriate

Medina, I., Vega‐Trejo, R., Wallenius, T., Symonds, M. R., & Stuart‐Fox, D. (2020). From cryptic to colorful: Evolutionary decoupling of larval and adult color in butterflies. *Evolution letters*, *4*(1), 34-43.

<https://onlinelibrary-wiley-com.virtual.anu.edu.au/doi/full/10.1002/evl3.149>

<https://datadryad.org/stash/dataset/doi:10.5061/dryad.c866t1g3c>