A statistical model for the persistence of birds develop using citizen science data

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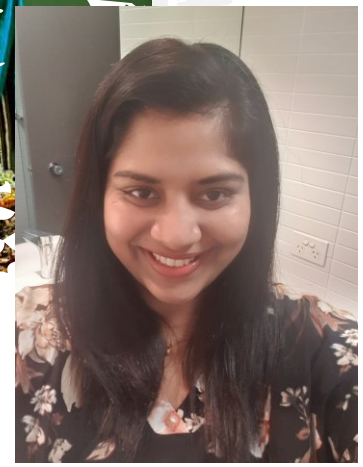

Objectives

- Development of a novel and reliable measure of persistence to identify threatened bird species worldwide.
- Improvement in the tools and the use of available information for monitoring conservation status.
- Earlier warning of extinction risk for bird species.
- Support of Port Phillip and Westernport Catchment Management Authority (PPWCMA) and other conservation authorities in their very important conservation works.
- More effective and efficient responses for saving threatened bird species in Australia.
- Extension of the results from birds to other animals.

Study Outline

- **Study 1:** Climate effect and citizen science growth effect are considered in Mornington Peninsula using hurdle models in spatial and temporal scales.
- **Study 2:** The fox Eradication Project initiated by Phillip Island Nature Park is considered using changepoint analysis. The fox eradication program is ongoing since 2006. In 2011 they were at the knockdown stage. Therefore, our objective is to see for which birds we can detect these changepoints.
- **Study 3:** Cluster analysis to identify the changes over time in the location, size and species composition of Australian shorebirds over time. Because we are using citizen science data it might be more a case of monitoring citizen science effort than the abundance of the birds themselves.
- **Final Study:** Build an interface/package for the persistence measure using R. You can access my shiny app from https://github.com/uwijewardhana/PPMCA/.

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Thank You

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