

## Supplementary material for

### **Digging in. A review of the ecology and management of a threatened reptile with a small disjunct distribution: the heath skink *Liopholis multiscutata* in Victoria, south-eastern Australia**

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#### **Text S1. Analysis methods**

All analyses were performed using R (v3.3; R Core Team 2017).

The number of active warrens (NAW) was calculated as the number of warrens that had one or more active burrows per site per year. To assess temporal trends in this response variable, we ran a negative binomial generalised linear model (GLM) with a log link using *glm()* function from the *stats* package (R Core Team 2017). A negative binomial model accounted for overdispersion in the data. Two models were run. The first model included all sampling years and the fixed factors were site and year (as categorical). Due to missing data for Red Bluff (2014 and 2015 were not sampled due to fire) and no sampling between 2007 to 2014, we performed a post-hoc linear contrast asking if 2007 differed from the 2014-2018 surveys. To ensure that RB was not overly influencing the results, we re-ran the model without RB.

For the second model, we re-ran the main model without 2007 and treated year as continuous variable, as well as included an interaction between year and site. We then asked if there was an overall linear trend and if that trend differed across sites. All comparisons were performed using linear contrasts with the *emmeans* package (Lenth 2018).

#### **References**

- Lenth, R., 2018. emmeans: Estimated Marginal Means, aka Least-Squares Means. R package version 1.1.3. <https://CRAN.R-project.org/package=emmeans>. 2018.
- R Core Team, 2017. R: A language and environment for statistical computing. R Foundation for Statistical Computing. v.3.3. 2017.