Applying a Multiverse to Snake Habitat Selection

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Abstract

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Keywords

Movement ecology, step selection function, habitat preference, habitat selection, animal movement, multiverse, research choice, researcher degrees for freedom,

1 Introduction

2 Methods

3 {r openOptions} # optionsCompleteList <- readRDS(here::here("data", "optionsComp

4 Results

5 Discussion

5.1 Limitations

5.2 Conclusions

6 Acknowledgements

7 Software availablity

In addition to packages already mentioned in the methods we also used the following.

We used *R* v.4.2.2 (R Core Team, 2023) via *RStudio* v.2023.6.2.561 (RStudio Team, 2022). We used *here* v.1.0.1 (Müller, 2020) and *qs* v.0.25.5 (Ching, 2023) to manage directory addresses and saved objects.

We used *raster* v.3.6.14 (Hijmans, 2023) and *RandomFields* v.3.3.14 (Schlather et al., 2015) to aid landscape raster creation alongside NLMR v.1.1.1 (Sciaini et al., 2018).

We used *ggplot2* v.3.4.2 for creating figures (Wickham, 2016), with the expansions: *patchwork* v.1.1.2 (Pedersen, 2022), *ggridges* v.0.5.4 (Wilke, 2022), and *ggdist* v.3.2.0 (Kay, 2023a).

We used *brms* v.2.19.0 (Bürkner, 2021) to run Bayesian models, with diagnostics generated used *bayesplot* v.1.10.0 (Gabry et al., 2019), *tidybayes* v.3.0.2 (Kay, 2023b), and *performance* v.0.10.2 (Lüdecke et al., 2021).

We used the *dplyr* v.1.1.3 (Wickham et al., 2023), *tibble* v.3.2.1 (Müller & Wickham, 2023), and *stringr* v.1.5.0 (Wickham, 2022) packages for data manipulation.

We used *sp* v.1.5.1 (Bivand, Pebesma & Gomez-Rubio, 2013), *move* v.4.1.12 (Kranstauber, Smolla & Scharf, 2023) for manipulation of spatial data and estimation of space use not otherwise mentioned in the methods.

We used rmarkdown v.2.19 (Xie, Allaire & Grolemund, 2018; Xie, Dervieux & Riederer, 2020; Allaire et al., 2023), bookdown v.0.33 (Xie, 2016, 2022), tinytex v.0.44 (Xie, 2019, 2023a), and knitr v.1.41 (Xie, 2014, 2015, 2023b) packages to generate type-set outputs.

We generated R package citations with the aid of *grateful* v.0.1.13 (Francisco Rodríguez-Sánchez, Connor P. Jackson & Shaurita D. Hutchins, 2023).

8 Data availabilty

9 Supplementary Material

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