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Short Title: XXX

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Conflicts of Interests: The authors declare no conflicts of interest.

Data Archiving: Data are available on DRYAD ([doi:10.5061/dryad.xwdbrv1f6](https://doi.org/10.5061/dryad.xwdbrv1f6)) (Tejero-Cicuéndez et al.

26 2021b)). R-scripts are found in the Supplemental Information.

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³⁰ **Abstract**

³¹ asdf

Introduction

some general paragraph on the evolution of phenotypic diversity

when organisms colonize new and unique habitats, they are subjected to novel ecological selection pressures in those habitats. Often these selective pressures elicit changes in body form, as organisms adapt to their new habitats (examples: some comment on ecomorphs, etc.). . . . leads to so-called ecomorphs, with such well known examples in Anolis lizards, cichlid fishes, etc. It follows that . . . Some comment on the fact that clades living in diverse ecological conditions often display greater diversity in form and function (REFS).

However, while the above patterns have been well documented in a variety of vertebrate taxa, what remains less known is how allometry plays a role in this phenotypic diversification. We know that XYZPDQ (about allometry). Then links to diversity..

The Afro-Arabian geckos in the genus *Pristurus* afford the opportunity to elucidate the interdigitating effects of allometry and habitat specialization on clade-level patterns of phenotypic diversity. Prior work on this system (Tejero-Cicuéndez et al. 2021a) has revealed that . . . (sentence or 2 about your prior study, getting to diversity and . . . Importantly, . . . something about habitat. . . . What remains unexamined however, is XYZPDQ. . .

In this study, we . . .

Materials and Methods

Data

Phylogenetic, ecological, phenotypic. . . . (describe briefly). Data from (Tejero-Cicuéndez et al. 2021a).

Statistical Analyses

To test the hypothesis. . .

regression scores (sensu Drake and Klingenberg 2008) and predicted lines (sensu Adams and Nistri 2010)

Results

Discussion

References

- Adams, D. C., and A. Nistri. 2010. Ontogenetic convergence and evolution of foot morphology in european cave salamanders (family: plethodontidae). *BMC Evolutionary Biology* 10:1–10. BioMed Central.
- Drake, A. G., and C. P. Klingenberg. 2008. The pace of morphological change: Historical transformation of skull shape in st bernard dogs. *Proceedings of the Royal Society B: Biological Sciences* 275:71–76.
- Tejero-Cicuéndez, H., M. Simó-Riudalbas, I. Menéndez, and S. Carranza. 2021a. Ecological specialization, rather than the island effect, explains morphological diversification in an ancient radiation of geckos. *Proceedings of the Royal Society B: Biological Sciences* 288:20211821.
- Tejero-Cicuéndez, H., M. Simó-Riudalbas, I. Menéndez, and S. Carranza. 2021b. Ecological specialization, rather than the island effect, explains morphological diversification in an ancient radiation of geckos. Dryad digital repository. (Doi:10.5061/dryad.xwdbrv1f6).

Figures

Figure 1. Linear Measures

Figure 2. Plot of regression scores and predicted lines representing the relationship between linear body measurements and size (SVL). Individuals occupying differing habitats are denoted by distinct colors as: rock (beige), ground (dark purple), and tree (magenta).

Figure 3. Traitgram showing body size (SVL) through time on the summary phylogenetic tree of *Pristurus*, mapped by the discrete categories of presence in Socotra or the continent (left) and by ecological specialization (right).

Figure 4. Phylomorphospace

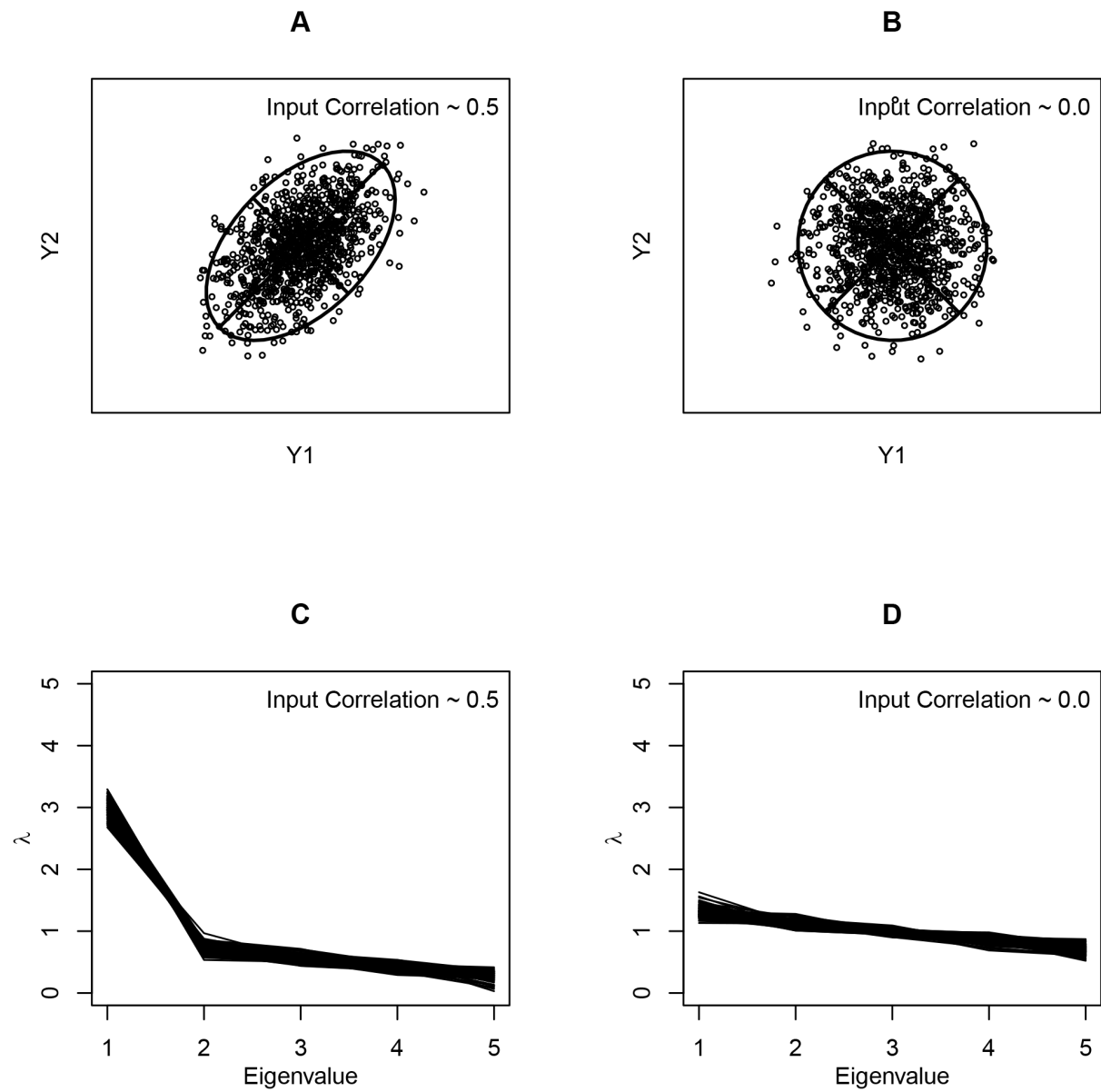


Figure 1: asdf.

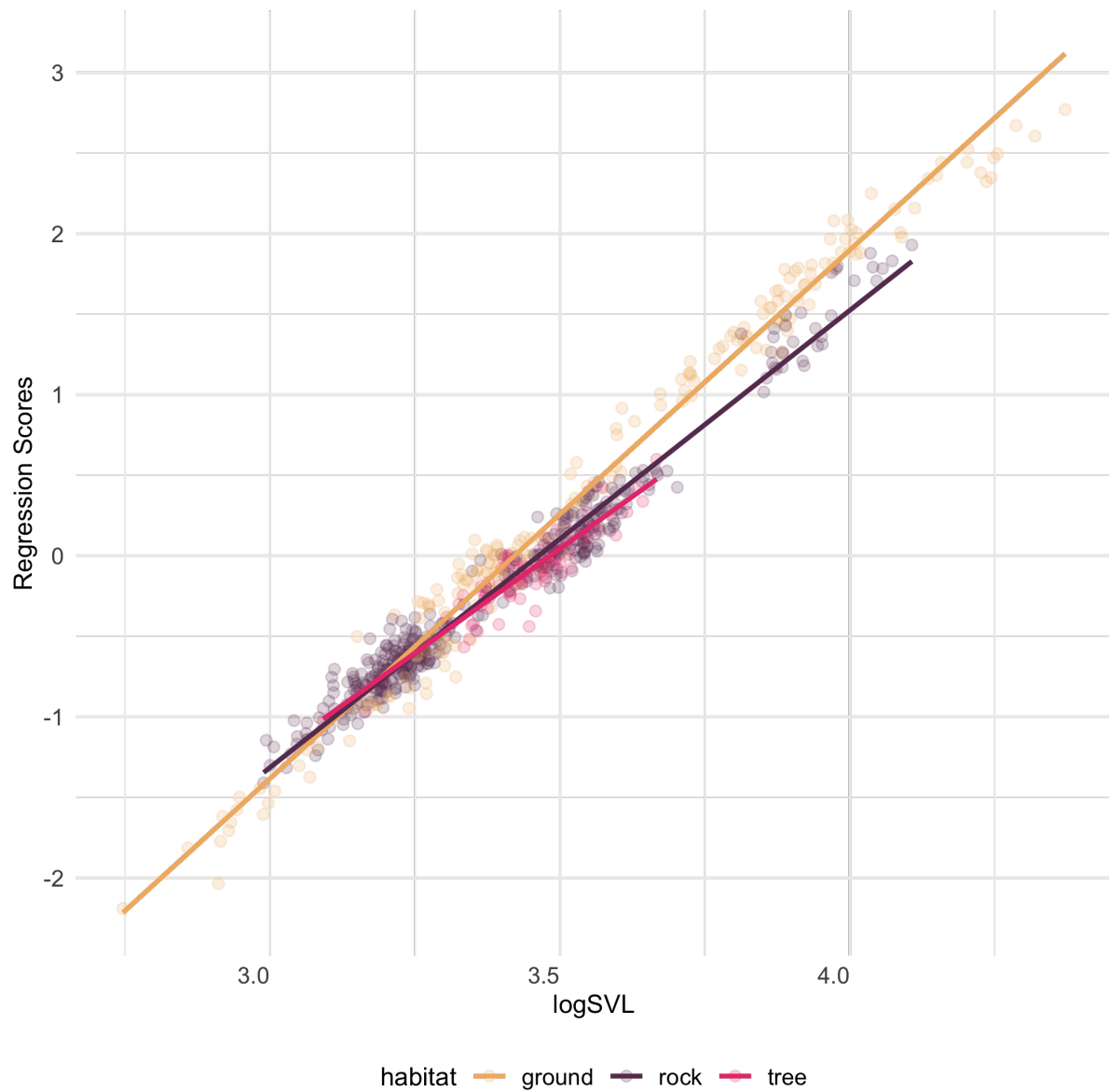


Figure 2: Plot of regression scores and predicted lines representing the relationship body proportions and body size (SVL). Individuals occupying differing habitats are denoted by distinct colors as: rock (beige), ground (dark purple), and tree (magenta).

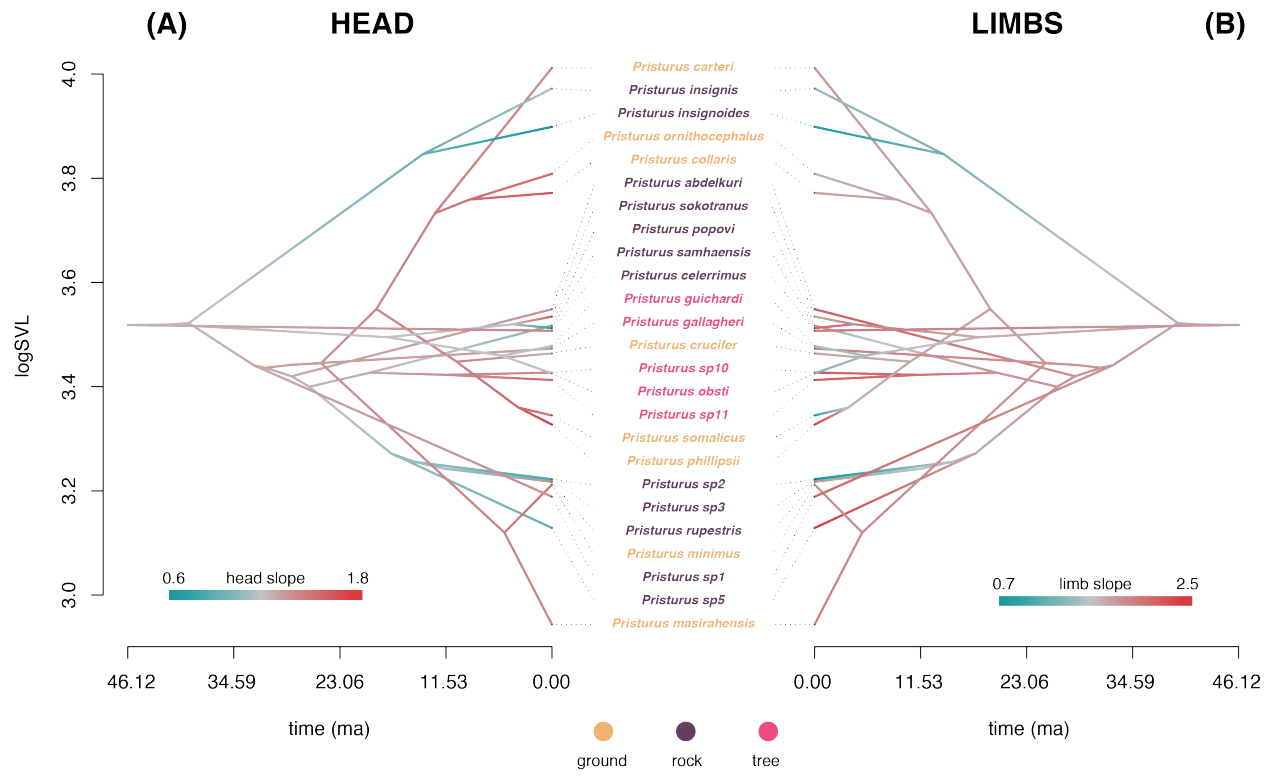


Figure 3: xxx.

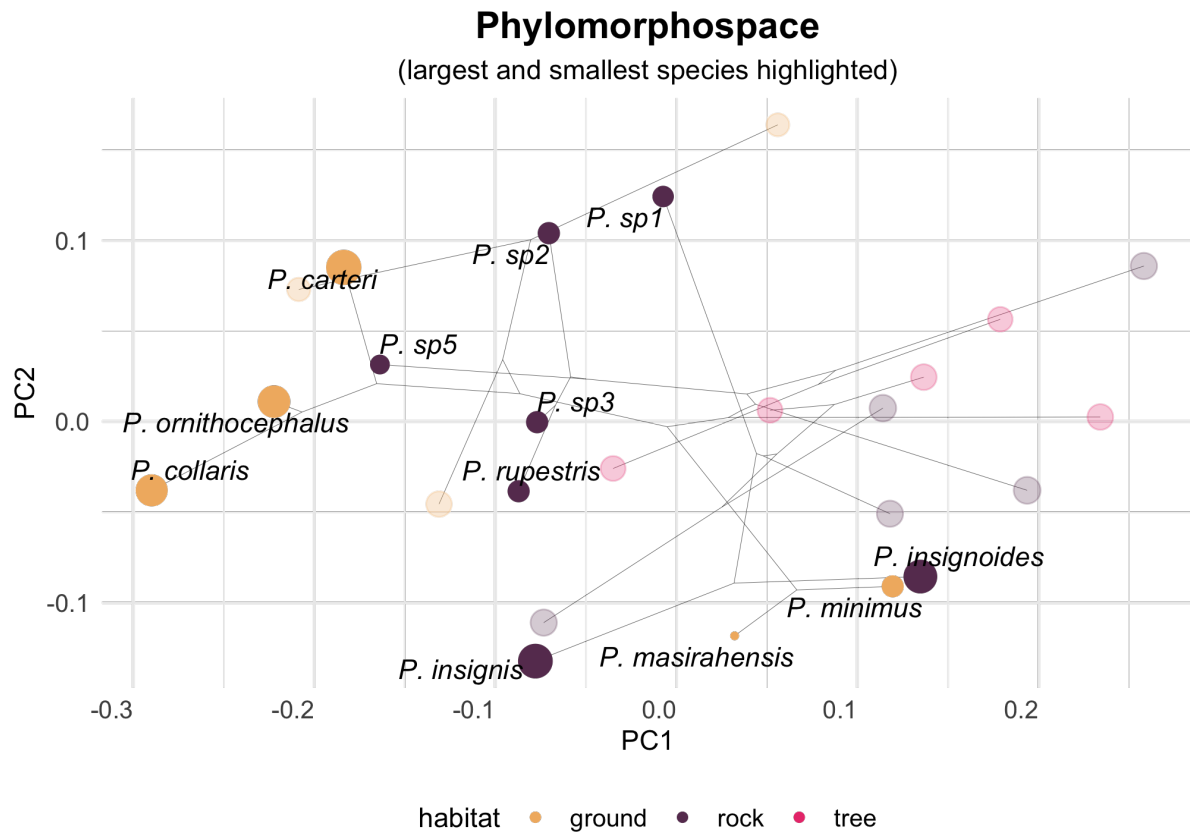


Figure 4: asdf.