



## Supporting Information

for

### **Subdigital integumentary microstructure in *Cyrtodactylus* (Squamata: Gekkota): do those lineages with incipiently expressed toepads exclusively exhibit adhesive setae?**

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## **Results of the two multivariate linear mixed-effects models**

Results of the two multivariate Linear Mixed-effects Models. The ecotype-model has the variable ecotype as predictor, whereas the structuretype-model has microstructure type as predictor. The model outputs include variance and std. deviation for the random effects, and estimate, std. error, degrees of freedom (df), *t*-value and adjusted *p*-values.

| Ecotype-model  |          |                |            |       |         |                     |
|----------------|----------|----------------|------------|-------|---------|---------------------|
| random effects |          |                |            |       |         |                     |
|                | variance | std. deviation |            |       |         |                     |
| (intercept)    | 0.05     | 0.23           |            |       |         |                     |
| Dens           | 0.00     | 0.04           |            |       |         |                     |
| EBS            | 0.96     | 0.98           |            |       |         |                     |
| residuals      | 0.07     | 0.26           |            |       |         |                     |
| fixed effects  |          |                |            |       |         |                     |
| ecotype        | trait    | estimate       | std. error | df    | t-value | p-value<br>adjusted |
| cave           | AD       | -1.78          | 0.35       | 52.08 | -5.13   | <0.001              |
|                | Dens     | 0.46           | 0.32       | 59.79 | 1.41    | 0.207               |
|                | EBS      | -4.84          | 0.84       | 29.26 | -5.75   | <0.001              |
| crown          | AD       | -2.10          | 0.21       | 28.99 | -9.89   | <0.001              |
|                | Dens     | 0.68           | 0.19       | 31.10 | 3.56    | <0.01               |
|                | EBS      | -6.72          | 0.58       | 27.27 | -11.49  | <0.001              |
| generalist     | AD       | -2.41          | 0.13       | 33.33 | -19.00  | <0.001              |
|                | Dens     | -0.07          | 0.11       | 36.68 | -0.67   | 0.579               |
|                | EBS      | -5.02          | 0.34       | 27.61 | -14.80  | <0.001              |
| granite        | AD       | -2.15          | 0.15       | 26.57 | -14.67  | <0.001              |
|                | Dens     | 0.09           | 0.13       | 28.30 | 0.73    | 0.554               |
|                | EBS      | -5.54          | 0.41       | 26.64 | -13.47  | <0.001              |
| intertidal     | AD       | -1.95          | 0.27       | 21.90 | -7.10   | <0.001              |
|                | Dens     | 0.12           | 0.24       | 22.65 | 0.51    | 0.654               |
|                | EBS      | -6.05          | 0.81       | 25.62 | -7.43   | <0.001              |
| karst          | AD       | -2.19          | 0.12       | 28.94 | -18.00  | <0.001              |
|                | Dens     | 0.03           | 0.11       | 31.24 | 0.27    | 0.815               |

|             |      |       |      |       |        |        |
|-------------|------|-------|------|-------|--------|--------|
| terrestrial | EBS  | -5.72 | 0.34 | 27.01 | -17.01 | <0.001 |
|             | AD   | -2.08 | 0.16 | 36.26 | -13.17 | <0.001 |
|             | Dens | 0.08  | 0.14 | 40.57 | 0.57   | 0.628  |
| trunk       | EBS  | -5.17 | 0.62 | 27.79 | -12.44 | <0.001 |
|             | AD   | -2.16 | 0.16 | 23.63 | -13.33 | <0.001 |
|             | Dens | 0.03  | 0.14 | 24.78 | 0.23   | 0.824  |
|             | EBS  | -6.17 | 0.47 | 25.90 | -13.09 | <0.001 |

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### Structuretype-model

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#### random effects

|             | variance | std. deviation |
|-------------|----------|----------------|
| (intercept) | 0.01     | 0.08           |
| Dens        | 0.02     | 0.13           |
| EBS         | 0.34     | 0.58           |
| residuals   | 0.07     | 0.26           |

#### fixed effects

| structuretype | trait | estimate | std. error | df    | t-value | p-value<br>adjusted |
|---------------|-------|----------|------------|-------|---------|---------------------|
| prongs        | AD    | -2.38    | 0.08       | 57.15 | -30.66  | <0.001              |
|               | Dens  | -0.15    | 0.09       | 40.92 | -1.69   | 0.131               |
|               | EBS   | -5.13    | 0.24       | 26.73 | -21.26  | <0.001              |
| setae         | AD    | -1.87    | 0.06       | 39.79 | -33.97  | <0.001              |
|               | Dens  | 0.33     | 0.06       | 28.20 | 5.10    | <0.001              |
|               | EBS   | -6.32    | 0.19       | 25.28 | -32.54  | <0.001              |
| spines        | AD    | -2.48    | 0.08       | 49.07 | -31.72  | <0.001              |
|               | Dens  | -0.10    | 0.09       | 34.56 | -1.15   | 0.318               |
|               | EBS   | -4.75    | 0.26       | 26.22 | -18.50  | <0.001              |