

| <b>Alpha diversity</b>                   |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|  | <b>WS</b>       | <b>WP</b>       | <b>CS</b>       | <b>Diet</b>     | <b>ICF</b>      | <b>Pgyny</b>    | <b>Pdomy</b>    | <b>SD</b>       | <b>Dom</b>      | <b>FSTR</b>     |
| <b>Mean annual temperature</b>           | (+) 0.14<br>*** | (+) 0.06<br>*** |                 | (+) 0.53<br>*** |                 | (-) 0.04<br>*** | (-) 0.15<br>*** | (+) 0.05<br>*** | (+) 0.07<br>*** | (+) 0.04<br>*** |
| <b>Temperature amplitude</b>             | (+) 0.09<br>*** | (+) 0.01<br>*   |                 | (+) 0.10<br>*** | (+) 0.02<br>**  |                 | (-) 0.01 *      | (+) 0.03<br>*** | (+) 0.01<br>*   | (+) 0.04<br>*** |
| <b>Annual precipitation</b>              |                 |                 | (-) 0.04<br>*** |                 |                 | (-) 0.03<br>**  |                 |                 |                 | (-) 0.08<br>*** |
| <b>Precipitation seasonality</b>         |                 |                 | (-) 0.01<br>*   |                 | (+) 0.18<br>*** |                 | (+) 0.06<br>*** | (+) 0.14<br>*** |                 |                 |
| <b>Land-uses diversity index</b>         |                 |                 | (+) 0.01<br>*   |                 |                 |                 |                 |                 |                 |                 |
| <b>Anthropogenic disturbance index</b>   | (-) 0.03<br>*** |                 |                 |                 |                 |                 |                 | (-) 0.01<br>*   | (-) 0.03<br>**  |                 |
| <b>Full model adjusted r<sup>2</sup></b> | 0.26            | 0.07            | 0.06            | 0.63            | 0.20            | 0.07            | 0.22            | 0.23            | 0.11            | 0.16            |

**Table S2.** Continuation.

|  | <b>Beta diversity</b> |           |           |             |            |              |              |           |            |             |
|--|-----------------------|-----------|-----------|-------------|------------|--------------|--------------|-----------|------------|-------------|
|  | <b>WS</b>             | <b>WP</b> | <b>CS</b> | <b>Diet</b> | <b>ICF</b> | <b>Pgyny</b> | <b>Pdomy</b> | <b>SD</b> | <b>Dom</b> | <b>FSTR</b> |
| <b>Mean annual temperature</b>           | 0.05 ***              | 0.04 ***  | 0.28 ***  | 0.42 ***    | 0.13 ***   | 0.43 ***     | 0.04 ***     | 0.02 ***  | 0.09 ***   | 0.23 ***    |
| <b>Temperature amplitude</b>             | 0.14 ***              | 0.03 ***  |           | 0.06 ***    | 0.01 *     |              | 0.12 ***     |           | 0.07 ***   |             |
| <b>Annual precipitation</b>              |                       | 0.08 ***  |           |             |            |              |              |           |            |             |
| <b>Precipitation seasonality</b>         | 0.01 *                | 0.01 **   | 0.01 **   |             | 0.11 ***   | 0.02 ***     | 0.01 *       | 0.17 ***  |            |             |
| <b>Land-uses diversity index</b>         |                       |           |           |             |            |              | 0.02 **      |           |            |             |
| <b>Anthropogenic disturbance index</b>   | 0.02 **               | 0.01 **   |           |             |            |              |              |           |            | 0.01 *      |
| <b>Full model adjusted r<sup>2</sup></b> | 0.22                  | 0.17      | 0.29      | 0.48        | 0.25       | 0.45         | 0.19         | 0.19      | 0.016      | 0.24        |

