**Table S4** Factor loadings for principal component analysis.

|  |  |  |
| --- | --- | --- |
|  | PC1(75.1%) | PC2(10.6%) |
| ML (mandible length) | 0.877  | 0.343  |
| MW (mandible width) | 0.801  | 0.509  |
| HL (horn length) | 0.702  | 0.390  |
| GW (gena width) | 0.964  | 0.153  |
| FPW (frontal prothorax width) | 0.909  | -0.164  |
| MPW (maximum prothorax width) | 0.926  | -0.172  |
| PL (prothorax length) | 0.903  | -0.159  |
| EW (elytra width) | 0.832  | -0.404  |
| EL (elytra length) | 0.860  | -0.397  |