

S3_Table. Sensitivity analysis of genetic diversity. After removal of identified sisters, we conducted a sensitivity analysis of the calculated mean expected heterozygosity (H_E) for each population of the different *Bombus* spp. in the time period 1918-1926, based on more stringent exclusion policies for missing data. From a maximum of 5 microsatellite loci with missing values within one specimen towards only one locus with missing data. With n = the total number of workers in each exclusion step and * = too low number of specimens.

| Species | Location | Year | Maximum microsatellite loci with missing values | | | | | |
|-------------------------------|--------------|----------|---|--------------|--------------|--------------|--------------|--|
| | | | 5 | 4 | 3 | 2 | 1 | |
| | | <i>n</i> | 161 | 159 | 154 | 139 | 112 | |
| Widespread / stable | | | | | | | | |
| <i>B. hortorum</i> | Gelderland | 1918 | 0.697 | 0.697 | 0.708 | 0.688 | - * | |
| | Overijssel | 1918 | 0.763 | 0.763 | 0.763 | 0.767 | 0.767 | |
| | Z-Holland | 1923 | 0.778 | 0.778 | 0.765 | 0.773 | 0.703 | |
| <i>B. lapidarius</i> | Limburg | 1918 | 0.553 | 0.553 | 0.553 | 0.644 | 0.622 | |
| | Overijssel | 1918 | 0.710 | 0.710 | 0.710 | 0.710 | 0.710 | |
| <i>B. pratorum</i> | Overijssel | 1918 | 0.604 | 0.604 | 0.604 | 0.613 | 0.613 | |
| <i>B. pascuorum</i> | Limburg | 1918 | 0.694 | 0.694 | 0.694 | 0.691 | 0.691 | |
| | N-Holland | 1924 | 0.702 | 0.702 | 0.659 | 0.608 | 0.611 | |
| | Overijssel | 1918 | 0.685 | 0.685 | 0.685 | 0.685 | 0.685 | |
| | Gelderland | 1925 | 0.733 | 0.733 | 0.733 | 0.734 | 0.690 | |
| | Total | | 0.692 | 0.692 | 0.687 | 0.691 | 0.677 | |
| Restricted / declining | | | | | | | | |
| <i>B. humilis</i> | Gelderland | 1926 | 0.425 | 0.425 | 0.425 | 0.425 | 0.372 | |
| | Limburg | 1918 | 0.366 | 0.366 | 0.366 | 0.366 | 0.299 | |
| <i>B. ruderatus</i> | Z-Holland | 1923 | 0.543 | 0.543 | 0.543 | 0.509 | 0.493 | |

| <i>Maximum microsatellite loci with missing values</i> | | | | | | | |
|--|--------------------|-------------|--------------|--------------|--------------|--------------|--------------|
| <i>Species</i> | <i>Location</i> | <i>Year</i> | 5 | 4 | 3 | 2 | 1 |
| | Overijssel | 1918 | 0.669 | 0.685 | 0.685 | 0.594 | 0.525 |
| <i>B. subterraneus</i> | Overijssel | 1925 | 0.625 | 0.625 | 0.625 | 0.625 | 0.605 |
| <i>B. sylvarum</i> | Limburg | 1918 | 0.451 | 0.451 | 0.451 | 0.470 | 0.484 |
| | Limburg | 1920 | 0.458 | 0.458 | 0.458 | 0.458 | 0.458 |
| | <i>Subtotal</i> | | 0.508 | 0.508 | 0.508 | 0.492 | 0.462 |
| <hr/> Widespread / declining | | | | | | | |
| <i>B. muscorum</i> | Limburg | 1918 | 0.401 | 0.383 | 0.383 | 0.383 | 0.389 |
| | Overijssel | 1918 | 0.503 | 0.498 | 0.498 | 0.498 | 0.498 |
| <i>B. ruderarius</i> | Limburg | 1918 | 0.496 | 0.496 | 0.496 | 0.570 | 0.570 |
| | N-Holland | 1924 | 0.490 | 0.490 | 0.490 | 0.496 | 0.458 |
| | Overijssel | 1918 | 0.252 | 0.252 | 0.252 | 0.250 | 0.289 |
| <i>B. veteranus</i> | Limburg | 1918 | 0.382 | 0.382 | 0.382 | 0.364 | 0.364 |
| | <i>Subtotal</i> | | 0.421 | 0.417 | 0.417 | 0.430 | 0.428 |
| | <hr/> Total | | 0.466 | 0.466 | 0.466 | 0.464 | 0.446 |