**Appendix S3:** Categorization of bee species in social or solitary. Due to their low abundance in the experiment parasitic species were treated as solitary because their abundance patterns rather resemble solitary species.

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| **Species** | **Social / solitary** |
| Andrena agilissima | solitary |
| Andrena alfkenella | solitary |
| Andrena bicolor | solitary |
| Andrena chrysosceles | solitary |
| Andrena cineraria | solitary |
| Andrena clarkella | solitary |
| Andrena dorsata | solitary |
| Andrena flavipes | solitary |
| Andrena haemorrhoa | solitary |
| Andrena helvola | solitary |
| Andrena humilis | solitary |
| Andrena labialis | solitary |
| Andrena labiata | solitary |
| Andrena lathyri | solitary |
| Andrena minutula | solitary |
| Andrena mitis | solitary |
| Andrena nitida | solitary |
| Andrena ovatula | solitary |
| Andrena praecox | solitary |
| Andrena proxima | solitary |
| Andrena stragulata | solitary |
| Andrena subopaca | solitary |
| Anthophora plumipes | solitary |
| Bombus bohemicus | solitary (parasitic) |
| Bombus campestris | solitary (parasitic) |
| Bombus hortorum | social |
| Bombus humilis | social |
| Bombus hypnorum | social |
| Bombus lapidarius | social |
| Bombus pascuorum | social |
| Bombus pratorum | social |
| Bombus sylvarum | social |
| Bombus terrestris-Agg. | social |
| Ceratina cyanea | solitary |
| Chelostoma campanularum | solitary |
| Chelostoma distinctum | solitary |
| Chelostoma rapunculi | solitary |
| Colletes cunicularius | solitary |
| Colletes similis | solitary |
| Eucera nigrescens | solitary |
| Halictus maculatus | social |
| Halictus scabiosae | social |
| Halictus simplex-Agg. | solitary |
| Halictus tumulorum | social |
| Halictus tumulorum | social |
| Heriades truncorum | solitary |
| Hylaeus angustatus | solitary |
| Hylaeus communis | solitary |
| Hylaeus confusus | solitary |
| Hylaeus difformis | solitary |
| Hylaeus gredleri | solitary |
| Hylaeus rinki | solitary |
| Hylaeus signatus | solitary |
| Hylaeus taeniolatus | solitary |
| Lasioglosssum pauxillum | social |
| Lasioglossum calceatum | social |
| Lasioglossum fulvicorne | solitary |
| Lasioglossum laticeps | social |
| Lasioglossum lativentre | solitary |
| Lasioglossum leucopus | solitary |
| Lasioglossum leucozonium | solitary |
| Lasioglossum malachurum | social |
| Lasioglossum minutissimum | solitary |
| Lasioglossum morio | social |
| Lasioglossum nitidulum | solitary |
| Lasioglossum pauxillum | social |
| Lasioglossum politum | social |
| Lasioglossum punctatissimum | solitary |
| Lasioglossum villosulum | solitary |
| Lasioglossum zonulum | solitary |
| Megachile centuncularis | solitary |
| Megachile rotunda | solitary |
| Megachile versicolor | solitary |
| Melitta leporina | solitary |
| Melitta nigricans | solitary |
| Nomada fabriciana | solitary (parasitic) |
| Nomada flava | solitary (parasitic) |
| Nomada lathburiana | solitary (parasitic) |
| Nomada sexfasciata | solitary (parasitic) |
| Osmia adunca | solitary |
| Osmia bicornis | solitary |
| Osmia caerulescens | solitary |
| Osmia cornuta | solitary |
| Osmia leucomelana | solitary |
| Sphecodes ephippius | solitary (parasitic) |
| Sphecodes ferruginatus | solitary (parasitic) |
| Sphecodes monilicornis | solitary (parasitic) |
| Sphecodes niger | solitary (parasitic) |
| Sphecodes puncticeps | solitary (parasitic) |
| Sphecodes ruficrus | solitary (parasitic) |
| Sphecodes scabricollis | solitary (parasitic) |
| Stelis punctulatissima | solitary (parasitic) |
| Xylocopa sp. | solitary |