**Supplementary online material: figures and tables**

Lichtenberg et al., Behavioral suites mediate group-level foraging dynamics in communities of tropical stingless bees

**Figure S1:** Map of the Fazenda Aretuzina, including locations of colonies used and the feeder array. Nests are shown in brown, roads in black, water in blue, buildings in red and the area where the feeder array was set up in green. The location of the *T. hyalinata* nest was determined through traplining from the directions that bees flew when returning to the nest from different locations.

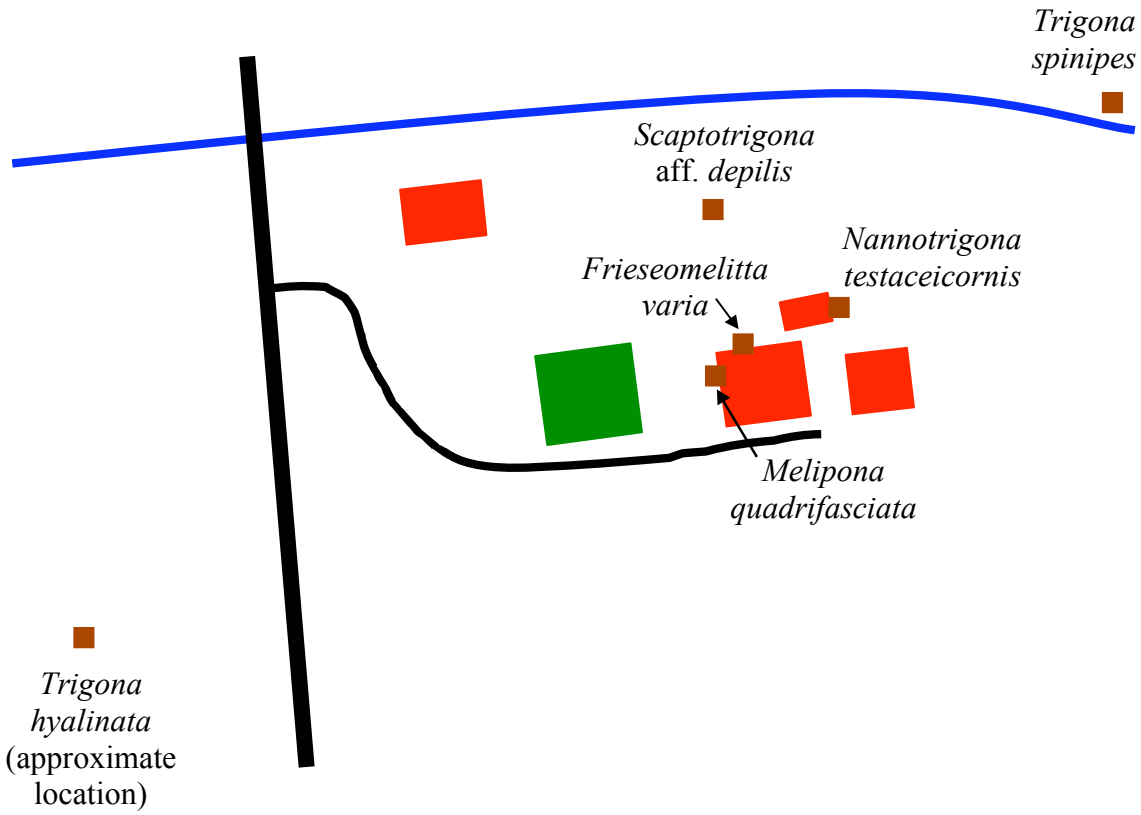

**Figure S2:** Close-up of the feeders used in this study showing the capillary tubes through which bees fed. A) shows *Melipona quadrifasciata* and b) *Frieseomelitta varia*.

a)

b)

**Table S1:** Summary of resource overlap between study species, out of 88 plant species used by more than one of the bee species. Due to the limited number of such studies which have been published, this table likely under-represents resource overlap. (Sources: Imperatriz-Fonseca et al.; Carvalho and Bego, 1996; Wilms et al., 1996; Carvalho and Bego, 1997; Viana et al., 1997; Mateus, 1998; Andena et al., 2005; Hrncir, pers. comm.; unpublished data; Menezes et al., 2007).

| **Species pair** | **Number of plant species known to be shared** |
|---|---|
| *F. varia – M. quadrifasciata* | 3 |
| *F. varia – N. testaceicornis* | 16 |
| *F. varia – S.* aff. *depilis* | 4 |
| *F. varia – T. hyalinata* | 7 |
| *F. varia – T. spinipes* | 21 |
| *M. quadrifasciata – N. testaceicornis* | 5 |
| *M. quadrifasciata – S.* aff. *depilis* | 5 |
| *M. quadrifasciata – T. hyalinata* | 7 |
| *M quadrifasciata – T. spinipes* | 21 |
| *N. testaceicornis – S.* aff. *depilis* | 7 |
| *N. testaceicornis – T. hyalinata* | 11 |
| *N. testaceicornis – T. spinipes* | 38 |
| *S.* aff. *depilis – T. hyalinata* | 8 |
| *S.* aff. *depilis – T. spinipes* | 12 |
| *T. hyalinata – T. spinipes* | 31 |

**Table S2:** Frequency (and percentage of total) with which each species initiated aggressive interactions against other species.

| | | Recipient | | | | | |
|---|---|---|---|---|---|---|---|
| | | **Fv** | **Mq** | **Nt** | **Sd** | **Th** | **Ts** |
| **Initiator** | ***F. varia* (Fv)** | -- | 2 (40%) | 3 (60%) | 0 | 0 | 0 |
| | ***M. quadrifasciata* (Mq)** | 3 (21%) | -- | 0 (0%) | 4 (29%) | 1 (7%) | 6 (43%) |
| | ***N. testaceicornis* (Nt)** | 3 (100%) | 0 (0%) | -- | 0 (0%) | 0 (0%) | 0 (0%) |
| | ***S.* aff. *depilis* (Sd)** | 1 (0.7%) | 138 (95%) | 1 (0.7%) | -- | 2 (1%) | 4 (3%) |
| | ***T. hyalinata* (Th)** | 0 (0%) | 1 (4%) | 1 (4%) | 20 (83%) | -- | 2 (8%) |
| | ***T. spinipes* (Ts)** | 7 (7%) | 82 (78%) | 2 (2%) | 13 (12%) | 1 (1%) | -- |

**Table S3:** Species abundance and aggression at a *Dombeya wallichii* tree located at the Universidade de São Paulo – Ribeirão Preto.

| **Species** | **Numerical (and percent) abundance** | **# aggressive interactions initiated** |
|---|---|---|
| *Apis mellifera* (Africanized) | 22 (10%) | 0 |
| *Frieseomelitta varia* | 2 (1%) | 0 |
| *Nannotrigona testaceicornis* | 1 (0.5%) | 0 |
| *Partamona* & *Scaptotrigona* spp. | 11 (5%) | 0 |
| *Plebeia droryana* | 2 (1%) | 0 |
| *Trigona hyalinata* | 177 (80%) | 10 |
| *Trigona spinipes* | 2 (1%) | 0 |

**Table S4:** Aggressive dominance rankings given by Nagamitsu and Inoue (1997, Table 7) and average change in visitation in the presence of other species, calculated from Table 4. In parentheses are species binomials as proposed in a recent catalog of Indo-Malayan and Australasian stingless bees (Rasmussen, 2008).

| **Bee species** | **Aggressive dominance** | **Avg. change in visitation/min** |
|---|---|---|
| *Trigona fimbriata* (*Homotrigona fimbriata*) | 1 | -0.05 |
| *Trigona apicalis* (*Tetrigona apicalis*) | 2 | 0.67 |
| *Trigona melina* (*Tetragonula melina*) | 2 | 0.25 |
| *Apis koschevnikovi* | 3 | -5.13 |
| *Trigona ventralis* (*Lepidotrigona ventralis*) | 4 | -1.11 |
| *Trigona laeviceps* (*Tetragonula laeviceps*) | 5 | -2.65 |
| *Trigona melanocephala* (*Tetragonula melanocephala*) | 5 | -1.36 |

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