**Supporting Information**

**Paper 6**: Ant community dynamics in lac insect agroecosystems: conservation benefits of a facultative association between ants and lac insects

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**Table S1**. The number of trees without ants in each treatment in every month.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Month | B0 | B10 | B30 | B60 |
| Jan. | 8 | 7 | 8 | 6 |
| Feb. | 16 | 9 | 1 | 2 |
| Mar. | 6 | 7 | 5 | 3 |
| Apr. | 3 | 1 | 1 | 2 |
| May | 4 | 2 | 1 | 1 |
| Jun. | 2 | 13 | 5 | 3 |
| Jul. | 8 | 15 | 11 | 3 |
| Aug. | 15 | 1 | 1 | 1 |
| Sep. | 2 | 1 | 2 | 1 |
| Oct. | 10 | 4 | 6 | 2 |
| Nov. | 20 | 2 | 4 | 2 |
| Dec. | 17 | 7 | 8 | 6 |
| Total | 111 | 62 | 45 | 26 |

B0 – represents no branch hosting lac insect; B10 – represents 10% of branches hosting lac insect; B30 – represents 30% of branches hosting lac insect; and B60 – represents 60% of branches hosting lac insect.

**Table S2**. Frequency of co-occurrence between the ant species on *D. obtusifolia*. Species ordered by total interaction frequency, empty columns removed.

| Ant species | *Cre. mac.* | | *Tet. all.* | | *Cre. fer.* | | *Cam. par.* | | *Pol. pro.* | | *Ano. gra.* | | *Dol. tho.* | | *Pol. tib.* | | *Cat. gra.* | | *Rho. wro.* | | *Phe. pie.* | | *Phe. aff.* | | *Phe. yee.* | | *Car. wro.* | | *Tet. att.* | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Crematogaster macaoensis* | \* | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| *Tetraponera allaborans* | 152 | | \* | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| *Crematogaster ferrarii* | 24 | | 111 | | \* | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| *Camponotus parius* | 43 | | 41 | | 27 | | \* | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| *Polyrhachis proxima* | 25 | | 22 | | 15 | | 13 | | \* | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| *Anoplolepis gracilipes* | 7 | | 8 | | 3 | | 2 | | 3 | | \* | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| *Dolichoderus thoracicus* | 1 | | 10 | | 5 | | 4 | | 2 | | 3 | | \* | |  | |  | |  | |  | |  | |  | |  | |  | |
| *Polyrhachis tibialis* | 18 | | 14 | | 8 | | - | | 1 | | - | | 5 | | \* | |  | |  | |  | |  | |  | |  | |  | |
| *Cataulacus granulatus* | 17 | | 16 | | 10 | | 5 | | - | | - | | 3 | | 2 | | \* | |  | |  | |  | |  | |  | |  | |
| *Rhoptromyrmex wroughtonii* | 4 | | 5 | | 4 | | 1 | | 2 | | 2 | | - | | - | | 2 | | \* | |  | |  | |  | |  | |  | |
| *Pheidole pieli* | 3 | | 4 | | 3 | | 2 | | 1 | | 1 | | - | | - | | - | | - | | \* | |  | |  | |  | |  | |
| *Pheidologeton affinis* | 7 | | 6 | | 5 | | 4 | | 3 | | - | | 1 | | - | | - | | 1 | | - | | \* | |  | |  | |  | |
| *Pheidole yeensis* | | 2 | | 5 | | - | | 1 | | 1 | | - | | - | | - | | - | | - | | - | | - | | \* | |  | |
| *Cardiocondyla wroughtoni* | | 1 | | 3 | | - | | - | | - | | - | | - | | - | | 1 | | - | | - | | - | | 1 | | \* | |  |
| *Tetraponera attenuata* | | - | | 1 | | 3 | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | \* |
| *Iridomyrmex anceps* | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | 1 |
| *Tapinoma melanocephalum* | | 5 | | 6 | | 5 | | 2 | | 1 | | 1 | | - | | 1 | | 1 | | - | | - | | - | | - | | - | | - |
| *Pheidole lighti* | | 7 | | 3 | | 1 | | 3 | | 1 | | 1 | | - | | - | | 1 | | - | | - | | - | | - | | - | | - |
| *Camponotus mitis* | | 5 | | 2 | | - | | 1 | | 2 | | 1 | | 1 | | - | | - | | - | | 1 | | - | | - | | - | | - |
| *Monomorium chinensis* | | 2 | | 1 | | 1 | | - | | 1 | | - | | - | | 1 | | 1 | | - | | - | | - | | - | | 1 | | - |
| *Pachycondyla rufipes* | | 4 | | 1 | | - | | 2 | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - |
| *Tapinoma indicum* | | - | | 5 | | 1 | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - |
| *Bothriomyrmex wroughtoni* | | 1 | | 3 | | - | | - | | - | | 1 | | - | | - | | - | | - | | - | | - | | - | | - | | - |
| *Pheidole roberti* | | - | | 1 | | 2 | | - | | 1 | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - |
| *Gnamptogenys bicolor* | | 1 | | - | | 1 | | - | | 1 | | - | | - | | - | | - | | - | | - | | 1 | | - | | - | | - |
| *Pseudolasius silvestrii* | | 2 | | 1 | | 1 | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - |
| *Polyrhachis ceylonensis* | | 1 | | - | | - | | - | | 1 | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - |
| *Crematogaster osakensis* | | - | | - | | - | | - | | - | | - | | - | | 1 | | - | | - | | - | | 1 | | - | | - | | - |
| *Aphaenogaster beccarii* | | 1 | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - |

The data are the sum for each ant species in 1440 investigations.