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Digital supplementary material

Digital supplementary material to

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Tab. S1: Specimen collection data for *Eciton* species and *Eciton burchellii* worker castes and males employed in this study.

ID	Species	Sample	Location	Date
EB1	*E. burchellii*	Pooled adult workers	Emigration	March, 2013
EB3	*E. burchellii*	Pooled adult workers	Emigration	February, 2013
EB4	*E. burchellii*	Pooled adult workers	Bivouac collection	February, 2013
EB5	*E. burchellii*	Pooled adult workers	Emigration	March, 2013
EB6	*E. burchellii*	Pooled adult workers	Emigration	March, 2013
EB7	*E. burchellii*	Pooled callows	Emigration	March, 2013
EB8	*E. burchellii*	Pooled adult workers	Emigration	March, 2013
EB9	*E. burchellii*	Pooled adult workers	Refuse deposit	April, 2013
EB10	*E. burchellii*	Pooled callows	Emigration	March, 2013
EB11	*E. burchellii*	Pooled adult workers	Refuse deposit	April, 2013
EB16	*E. burchellii*	Pooled adult workers	Emigration	February, 2014
EB17	*E. burchellii*	Pooled adult workers	Emigration	April, 2014
ED1	*E. dulcium*	Pooled adult workers	Emigration	February, 2013
ED3	*E. dulcium*	Pooled adult workers	Emigration	March, 2013
ED4	*E. dulcium*	Pooled adult workers	Emigration	March, 2013
ED5	*E. dulcium*	Pooled adult workers	Emigration	April, 2013
ED6	*E. dulcium*	Pooled adult workers	Emigration	April, 2014
ED8	*E. dulcium*	Pooled adult workers	Emigration	March, 2014
ED9	*E. dulcium*	Pooled adult workers	Emigration	April, 2014
ED10	*E. dulcium*	Pooled adult workers	Emigration	April, 2014
ED11	*E. dulcium*	Pooled adult workers	Emigration	April, 2014
EH3	*E. hamatum*	Pooled adult workers	Emigration	February, 2013
EH4	*E. hamatum*	Pooled adult workers	Emigration	March, 2013
EH5	*E. hamatum*	Pooled adult workers	Raiding	March, 2013
EH6	*E. hamatum*	Pooled adult workers	Emigration	March, 2013
EH7	*E. hamatum*	Pooled adult workers	Emigration	March, 2013
EH8	*E. hamatum*	Pooled adult workers	Emigration	March, 2013
EH9	*E. hamatum*	Pooled adult workers	Emigration	April, 2013
EH10	*E. hamatum*	Pooled adult workers	Emigration	April, 2013
EH11	*E. hamatum*	Pooled adult workers	Raiding	March, 2014
EH12	*E. hamatum*	Pooled adult workers	Emigration	March, 2014
EH14	*E. hamatum*	Pooled adult workers	Emigration	April, 2014
EL1	*E. lucanoides*	Pooled adult workers	Emigration	February, 2013
EL3	*E. lucanoides*	Pooled adult workers	Raiding	April, 2014
EM4	*E. mexicanum*	Pooled adult workers	Emigration	March, 2013
EM6	*E. mexicanum*	Pooled adult workers	Emigration	March, 2014
EM7	*E. mexicanum*	Pooled adult workers	Emigration	March, 2014
EM8	*E. mexicanum*	Pooled adult workers	Emigration	March, 2014
EM9	*E. mexicanum*	Pooled adult workers	Emigration	May, 2014

ID	Species	Sample	Location	Date
EM10	*E. mexicanum*	Pooled adult workers	Emigration	April, 2014
EM11	*E. mexicanum*	Pooled adult workers	Emigration	April, 2014
EM12	*E. mexicanum*	Pooled adult workers	Emigration	April, 2014
EM13	*E. mexicanum*	Pooled adult workers	Emigration	April, 2014
EV1	*E. vagans*	Pooled adult workers	Emigration	February, 2013
EV3	*E. vagans*	Pooled adult workers	Emigration	March, 2013
EV5	*E. vagans*	Pooled adult workers	Emigration	March, 2013
EV6	*E. vagans*	Pooled adult workers	Emigration	April, 2014
EV7	*E. vagans*	Pooled adult workers	Emigration	April, 2014
EV8	*E. vagans*	Pooled adult workers	Emigration	April, 2014
EB16_Major1	*E. burchellii*	Major	Emigration	February, 2014
EB16_Major2	*E. burchellii*	Major	Emigration	February, 2014
EB16_Media2	*E. burchellii*	Media	Emigration	February, 2014
EB16_Media3	*E. burchellii*	Media	Emigration	February, 2014
EB16_Minor1	*E. burchellii*	Minor	Emigration	February, 2014
EB16_Minor2	*E. burchellii*	Minor	Emigration	February, 2014
EB16_Minor3	*E. burchellii*	Minor	Emigration	February, 2014
EB16_Submajor1	*E. burchellii*	Submajor	Emigration	February, 2014
EB16_Submajor2	*E. burchellii*	Submajor	Emigration	February, 2014
EB16_Submajor3	*E. burchellii*	Submajor	Emigration	February, 2014
EB16_Submajor4	*E. burchellii*	Submajor	Emigration	February, 2014
EB4_Major1	*E. burchellii*	Major	Bivouac collection	February, 2013
EB4_Major2	*E. burchellii*	Major	Bivouac collection	February, 2013
EB4_Major3	*E. burchellii*	Major	Bivouac collection	February, 2013
EB4_Male1	*E. burchellii*	Male	Bivouac collection	February, 2013
EB4_Male2	*E. burchellii*	Male	Bivouac collection	February, 2013
EB4_Male3	*E. burchellii*	Male	Bivouac collection	February, 2013
EB4_Media1	*E. burchellii*	Media	Bivouac collection	February, 2013
EB4_Media2	*E. burchellii*	Media	Bivouac collection	February, 2013
EB4_Media3	*E. burchellii*	Media	Bivouac collection	February, 2013
EB4_Minor1	*E. burchellii*	Minor	Bivouac collection	February, 2013
EB4_Minor2	*E. burchellii*	Minor	Bivouac collection	February, 2013
EB4_Minor3	*E. burchellii*	Minor	Bivouac collection	February, 2013
EB4_Submajor1	*E. burchellii*	Submajor	Bivouac collection	February, 2013
EB4_Submajor2	*E. burchellii*	Submajor	Bivouac collection	February, 2013
EB4_Submajor3	*E. burchellii*	Submajor	Bivouac collection	February, 2013

Tab. S2: Total, average, minimum and maximum number of sequences across *Eciton* species.

Species	Number of samples	Total number of sequences	Median number of sequences	Minimum number of sequences	Maximum number of sequences
E. burchellii	12	1,507,858	44,457	44,202	541,285
E. dulcium	9	742,620	65,332	35,887	244,025
E. hamatum	11	1,118,479	84,414	3,134	185,609
E. lucanoides	2	163,007	81,504	47,861	115,146
E. mexicanum	9	1,559,332	104,191	26,328	474,935
E. vagans	6	1,701,889	99,020	33,762	1,117,978

Tab. S3: Operational Taxonomic Units (OTUs) sequences, taxonomy and relative abundance detected across all samples within the six *Eciton* species dataset. “Appendix, as digital supplementary material to this article, at the journal's web pages".

Tab. S4: Number of sequences recovered from *Eciton burchellii* worker castes and male samples.

Castes/males	Number of samples	Total number of sequences	Median number of sequences	Minimum number of sequences	Maximum number of sequences
Minor	6	228,230	30,511	15,962	70,093
Media	5	260,917	43,621	12,344	102,894
Submajor	7	513,360	62,666	12,719	146,628
Major	5	477,851	74,836	40,937	185,448
Male	3	141,471	20,596	14,490	106,385

Tab. S5: Operational Taxonomic Units (OTUs) sequences, taxonomy and relative abundance detected across all samples within the *Eciton burchellii* castes and males dataset. "Appendix, as digital supplementary material to this article, at the journal's web pages".

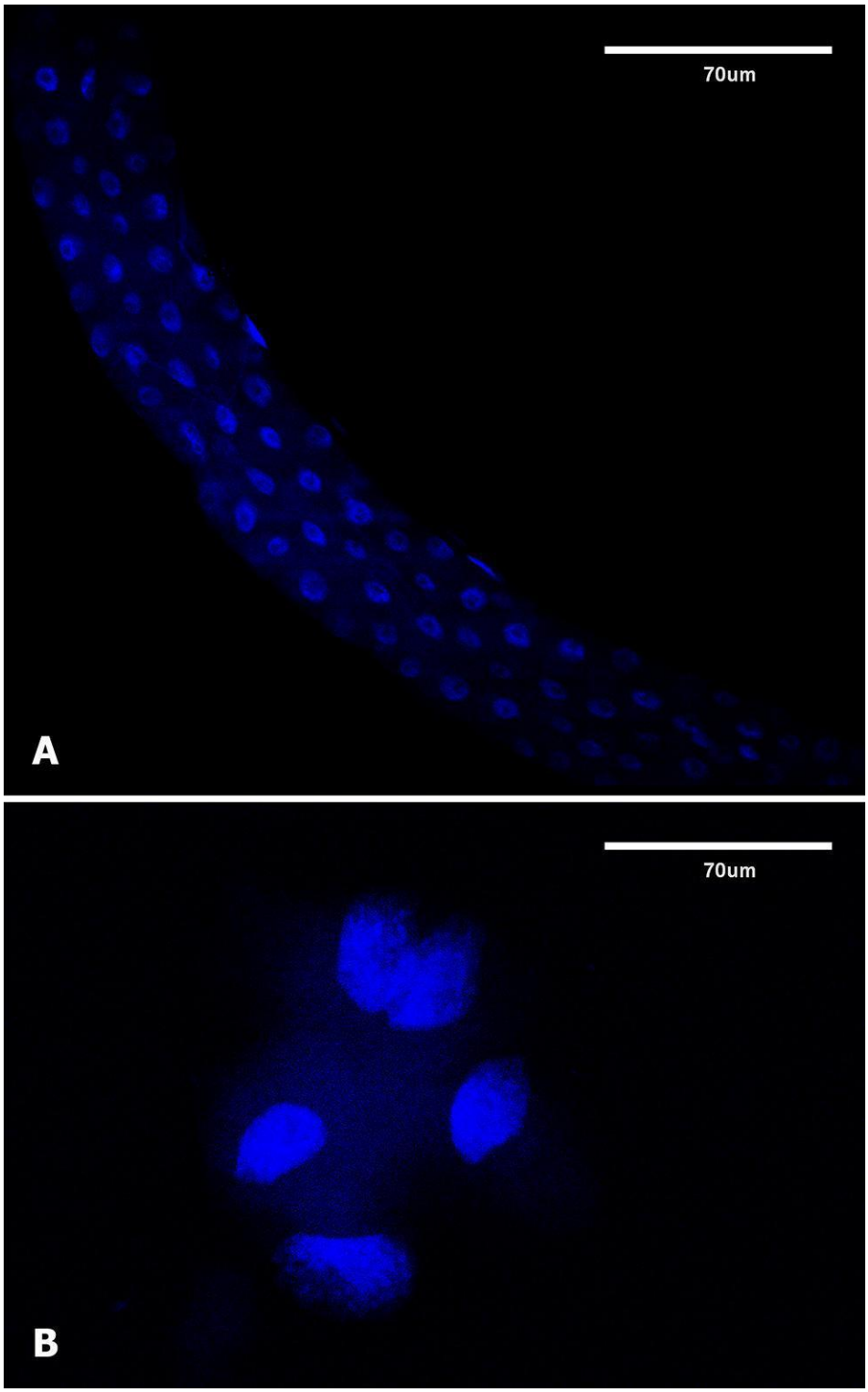

Fig. S1: Negative controls for symbiont-specific probes. A) Negative control (Cy5- UNF16SF1 without competitors, color: orange) and DAPI (blue). B) Negative control (Cy5- cute493R without competitors, green) and DAPI (blue).

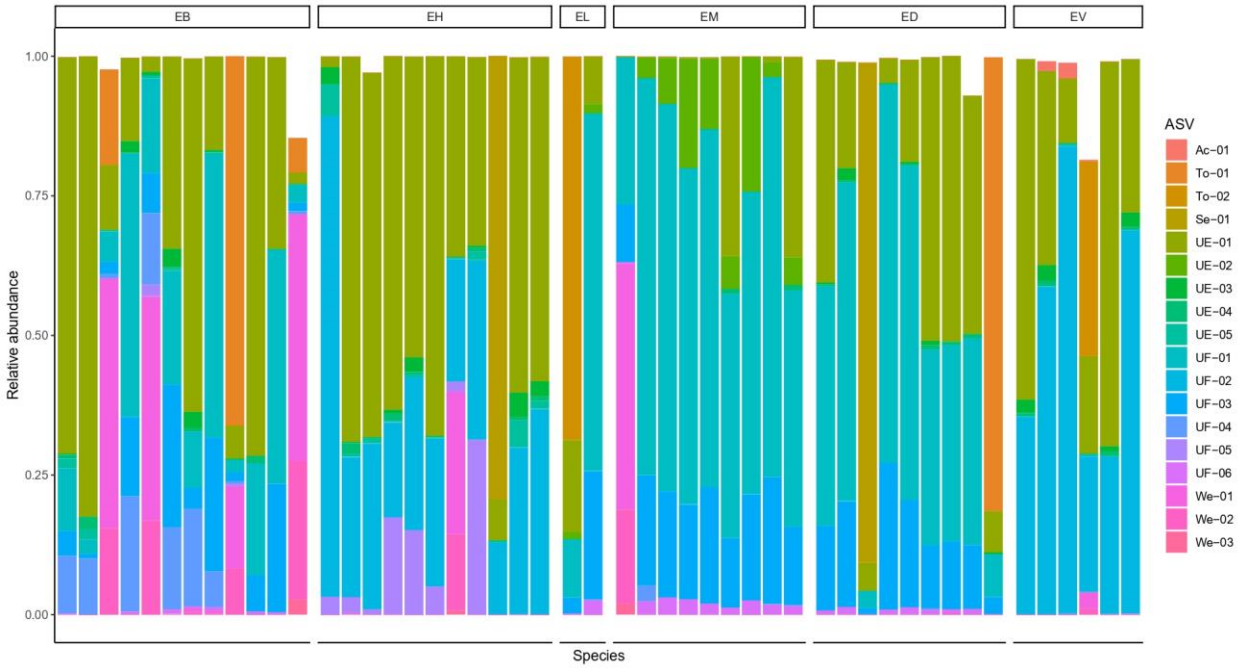

Fig. S2: Bar plot showing the abundance of OTUs in each colony (x-axis). Order of x-axis is based on phylogenetic relationships between *Eciton* species. Order of x-axis is based on phylogenetic relationships between *Eciton* species, which was recovered from Winston & al. 2016. Abbreviations: Ac: *Acinetobacter*; To: *Tokpelaia*; EB: *Eciton burchellii*; ED: Eciton dulcium; EH: *Eciton hamatum*; EL: *Eciton lucanoides*; EM: *Eciton mexicanum*; EV: *Eciton vagans*. Se: *Serratia*; UE: Unclassified Entomoplasmatales; UF: Unclassified Firmicutes; We: *Weissella.*