

Supplementary Material

Table S1. Functional diversity metrics for papaya plantation sites. s = species richness, q = order of diversity metric, ${}^1D(TM)$ = functional trait species dispersion, ${}^1E(T)$ = evenness of dispersion.

Papaya plantations sites	s	q	${}^1E(T)$	${}^1D(TM)$
Site 1	19	1	0.26	1.71
Site 2	22	1	0.40	2.74
Sites 3	27	1	0.27	2.39
Site 7	30	1	0.30	2.92
Site 8	26	1	0.29	2.43
Site 9	29	1	0.36	3.08
Total (Gamma)	153	1	0.29	9.61

Table S2. Functional diversity metrics for cattle pasture sites. s = species richness, q = order of diversity metric, ${}^1D(TM)$ = functional trait species dispersion, ${}^1E(T)$ = evenness of dispersion.

Cattle pasture sites	s	q	${}^1E(T)$	${}^1D(TM)$
Site 4	16	1	0.52	2.63
Site 5	15	1	0.51	2.53
Site 6	26	1	0.29	2.34
Site 10	18	1	0.43	2.44
Site 11	22	1	0.44	2.94
Site 12	17	1	0.46	2.64
Total (Gamma)	114	1	0.38	9.83

Table S3. Functional diversity metrics for forest interior in papaya plantation sites. s = species richness, q = order of diversity metric, ${}^1D(TM)$ = functional trait species dispersion, ${}^1E(T)$ = evenness of dispersion.

Forest at papaya plantation site	s	q	${}^1E(T)$	${}^1D(TM)$
Forest 1	14	1	0.48	2.26
Forest 2	15	1	0.59	2.79
Forest 3	15	1	0.47	2.19
Forest 7	19	1	0.38	2.36
Forest 8	16	1	0.48	2.54
Forest 9	10	1	0.61	2.14
Total (Gamma)	89	1	0.44	8.72

Table S4. Functional diversity metrics for forest edge in papaya plantation sites. s = species richness, q = order of diversity metric, ${}^1D(TM)$ = functional trait species dispersion, ${}^1E(T)$ = evenness of dispersion.

Edge at papaya plantation sites	s	q	${}^1E(T)$	${}^1D(TM)$
Edge 1	9	1	0.50	1.78
Edge 2	15	1	0.53	2.49
Edge 3	17	1	0.38	2.06
Edge 7	19	1	0.47	2.96
Edge 8	18	1	0.45	2.67
Edge 9	20	1	0.52	3.22
Total (Gamma)	98	1	0.44	9.78

Table S5. Functional diversity metrics for papaya plantation vegetation type. s = species richness, q = order of diversity metric, ${}^1D(TM)$ = functional trait species dispersion, ${}^1E(T)$ = evenness of dispersion.

Papaya at papaya plantation sites	s	q	${}^1E(T)$	${}^1D(TM)$
Papaya 1	11	1	0.33	1.31
Papaya 2	8	1	0.52	1.70
Papaya 3	18	1	0.33	2.11
Papaya 7	17	1	0.49	2.45
Papaya 8	12	1	0.37	1.75
Papaya 9	20	1	0.47	2.54
Total (Gamma)	86	1	0.36	6.31

Table S6. Functional diversity metrics for forest interior in cattle pasture sites. s = species richness, q = order of diversity metric, ${}^1D(TM)$ = functional trait species dispersion, ${}^1E(T)$ = evenness of dispersion.

Forest at cattle pasture sites	s	q	${}^1E(T)$	${}^1D(TM)$
Forest 4	11	1	0.55	2.11
Forest 5	12	1	0.68	2.67
Forest 6	10	1	0.66	2.31
Forest 10	14	1	0.56	2.39
Forest 11	11	1	0.63	2.40
Forest 12	18	1	0.42	2.42
Total (Gamma)	76	1	0.52	8.85

Table S7. Functional diversity metrics for forest edge in cattle pasture sites. s = species richness, q = order of diversity metric, ${}^1D(TM)$ = functional trait species dispersion, ${}^1E(T)$ = evenness of dispersion.

Edge at cattle pasture sites	s	q	${}^1E(T)$	${}^1D(TM)$
Edge 4	10	1	0.63	2.18
Edge 5	13	1	0.61	2.56
Edge 6	12	1	0.50	2.22
Edge 10	10	1	0.66	2.33
Edge 11	6	1	0.74	1.76
Edge 12	17	1	0.42	2.41
Total (Gamma)	68	1	0.51	8.09

Table S8. Functional diversity metrics for cattle pasture vegetation type. s = species richness, q = order of diversity metric, ${}^1D(TM)$ = functional trait species dispersion, ${}^1E(T)$ = evenness of dispersion.

Pasture at cattle pasture sites	s	q	${}^1E(T)$	${}^1D(TM)$
Pasture 4	12	1	0.64	2.08
Pasture 5	12	1	0.58	1.84
Pasture 6	8	1	0.86	2.57
Pasture 10	7	1	0.80	1.98
Pasture 11	4	1	0.95	1.74
Pasture 12	11	1	0.46	1.58
Total (Gamma)	54	1	0.57	6.06