

Supplemental Information for:

**Pollinator and host sharing lead to
hybridization and introgression in
Panamanian free-standing figs, but not in
their pollinator wasps**

Jordan D. Satler, Edward Allen Herre, Tracy A. Heath, Carlos A. Machado,
Adalberto Gómez Zúñiga, K. Charlotte Jandér, Deren A. R. Eaton, and John D. Nason

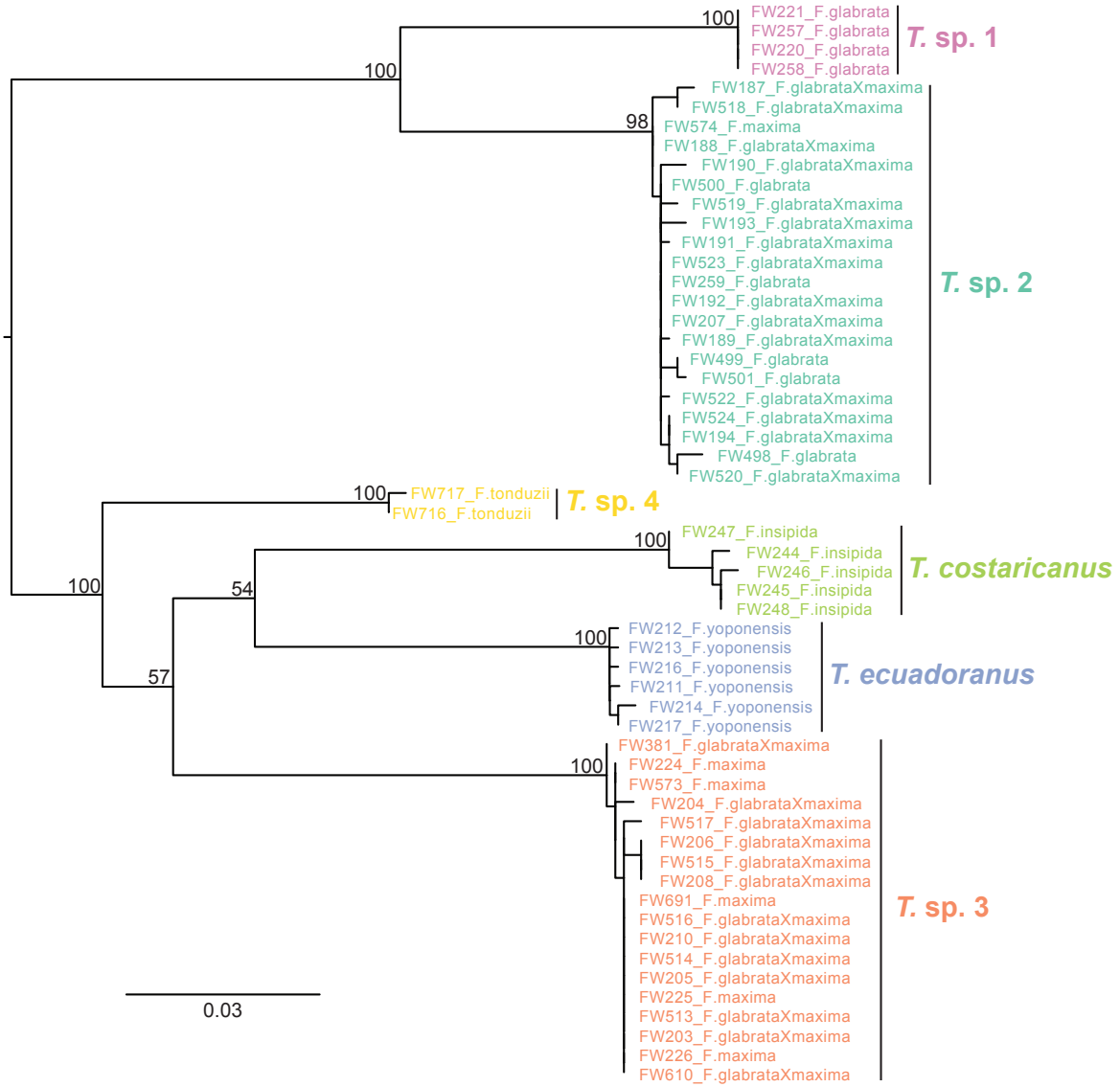


Figure S1: Maximum likelihood gene tree estimate of *Tetrapus* wasp COI data obtained from UCE sequencing. Nodal support values represent bootstrap support. Individuals are labeled with their unique identifier (FW#) and the host species from which they were sampled. The tree was midpoint rooted for visual purposes.

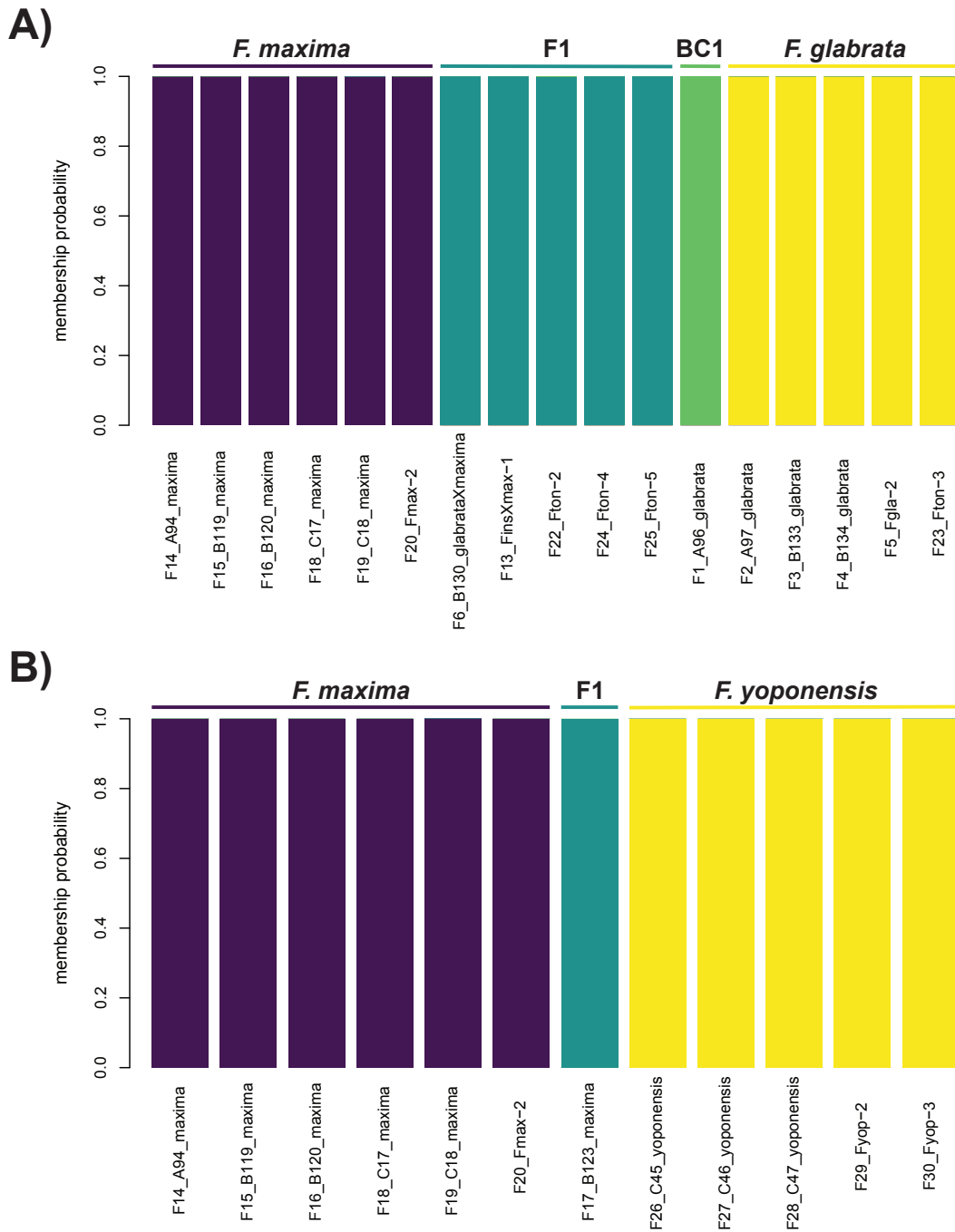


Figure S2: Hybrid analyses with snapclust. Panel A shows hybrids identified between *F. glabrata* and *F. maxima*, including five F1s and one first-generation backcross (BC1) to *F. glabrata*. Panel B shows an F1 hybrid identified between *F. maxima* and *F. yoponensis*. Individuals are labeled with their unique identifier (F#) and internal sampling code.

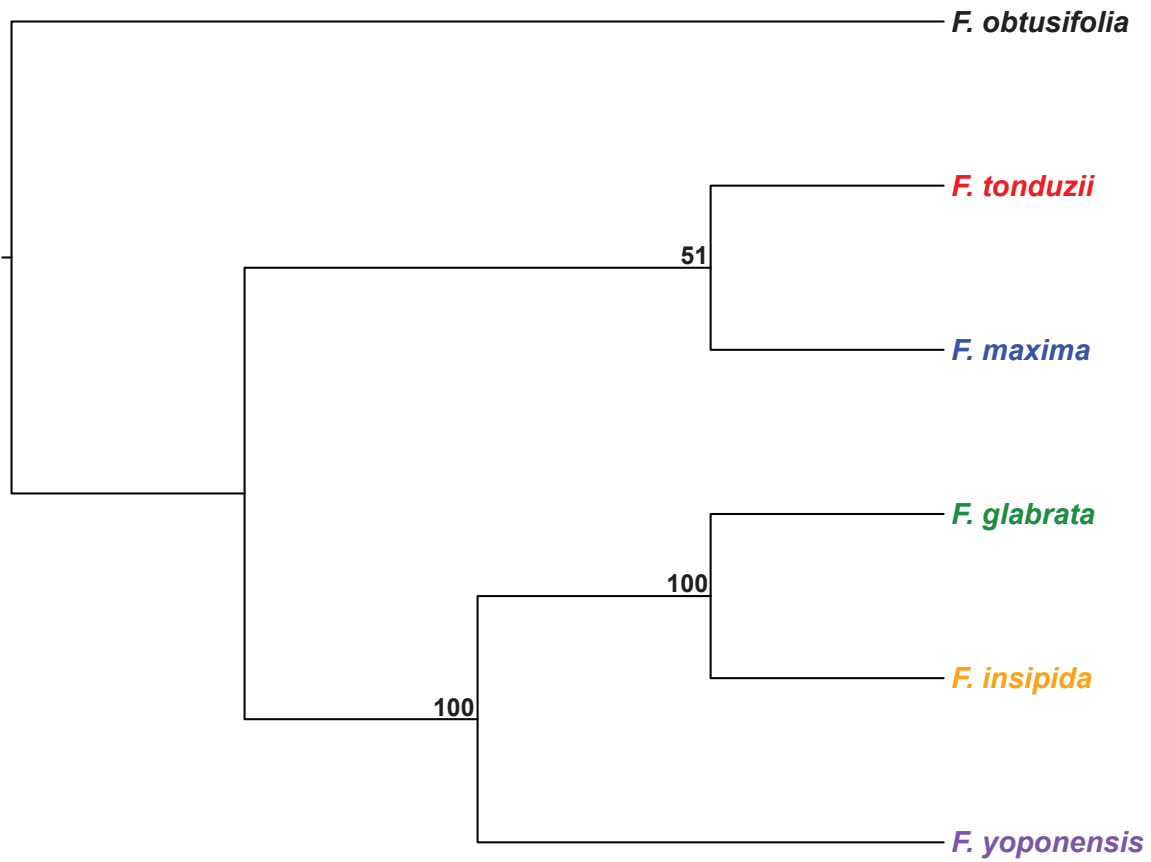


Figure S3: Species tree analysis with SVDQuartets of the *Pharmacosycea* figs. Nodal support values represent bootstrap support.

Individual	Pollinator Wasp	Sampled Host Fig	BioSample
FW187	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644000
FW188	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644001
FW189	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644002
FW190	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644003
FW191	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644004
FW192	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644005
FW193	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644006
FW194	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644007
FW203	<i>Tetrapus</i> sp. 3	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644008
FW204	<i>Tetrapus</i> sp. 3	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644009
FW205	<i>Tetrapus</i> sp. 3	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644010
FW206	<i>Tetrapus</i> sp. 3	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644011
FW207	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644012
FW208	<i>Tetrapus</i> sp. 3	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644013
FW210	<i>Tetrapus</i> sp. 3	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644014
FW211	<i>Tetrapus ecuadoranus</i>	<i>Ficus yoponensis</i>	SAMN31644015
FW212	<i>Tetrapus ecuadoranus</i>	<i>Ficus yoponensis</i>	SAMN31644016
FW213	<i>Tetrapus ecuadoranus</i>	<i>Ficus yoponensis</i>	SAMN31644017
FW214	<i>Tetrapus ecuadoranus</i>	<i>Ficus yoponensis</i>	SAMN31644018
FW216	<i>Tetrapus ecuadoranus</i>	<i>Ficus yoponensis</i>	SAMN31644019
FW217	<i>Tetrapus ecuadoranus</i>	<i>Ficus yoponensis</i>	SAMN31644020
FW220	<i>Tetrapus</i> sp. 1	<i>Ficus glabrata</i>	SAMN31644021
FW221	<i>Tetrapus</i> sp. 1	<i>Ficus glabrata</i>	SAMN31644022
FW224	<i>Tetrapus</i> sp. 3	<i>Ficus maxima</i>	SAMN31644023
FW225	<i>Tetrapus</i> sp. 3	<i>Ficus maxima</i>	SAMN31644024
FW226	<i>Tetrapus</i> sp. 3	<i>Ficus maxima</i>	SAMN31644025
FW244	<i>Tetrapus costaricanus</i>	<i>Ficus insipida</i>	SAMN31644026
FW245	<i>Tetrapus costaricanus</i>	<i>Ficus insipida</i>	SAMN31644027
FW246	<i>Tetrapus costaricanus</i>	<i>Ficus insipida</i>	SAMN31644028
FW247	<i>Tetrapus costaricanus</i>	<i>Ficus insipida</i>	SAMN31644029
FW248	<i>Tetrapus costaricanus</i>	<i>Ficus insipida</i>	SAMN31644030
FW257	<i>Tetrapus</i> sp. 1	<i>Ficus glabrata</i>	SAMN31644031
FW258	<i>Tetrapus</i> sp. 1	<i>Ficus glabrata</i>	SAMN31644032
FW259	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i>	SAMN31644033
FW381	<i>Tetrapus</i> sp. 3	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644034
FW498	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i>	SAMN31644035
FW499	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i>	SAMN31644036
FW500	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i>	SAMN31644037
FW501	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i>	SAMN31644038
FW513	<i>Tetrapus</i> sp. 3	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644039
FW514	<i>Tetrapus</i> sp. 3	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644040

FW515	<i>Tetrapus</i> sp. 3	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644041
FW516	<i>Tetrapus</i> sp. 3	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644042
FW517	<i>Tetrapus</i> sp. 3	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644043
FW518	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644044
FW519	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644045
FW520	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644046
FW521	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644047
FW522	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644048
FW523	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644049
FW524	<i>Tetrapus</i> sp. 2	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644050
FW573	<i>Tetrapus</i> sp. 3	<i>Ficus maxima</i>	SAMN31644051
FW574	<i>Tetrapus</i> sp. 2	<i>Ficus maxima</i>	SAMN31644052
FW610	<i>Tetrapus</i> sp. 3	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644053
FW691	<i>Tetrapus</i> sp. 3	<i>Ficus maxima</i>	SAMN31644054
FW716	<i>Tetrapus</i> sp. 4	<i>Ficus tonduzii</i>	SAMN31644055
FW717	<i>Tetrapus</i> sp. 4	<i>Ficus tonduzii</i>	SAMN31644056

Table S1: Pollinator wasp sampling. Information includes unique individual identifier (FW#), pollinator wasp species, sampled host fig species, and NCBI BioSample accession number.

Individual	Sampled Host Fig	BioSample
F1	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644057
F2	<i>Ficus glabrata</i>	SAMN31644058
F3	<i>Ficus glabrata</i>	SAMN31644059
F4	<i>Ficus glabrata</i>	SAMN31644060
F5	<i>Ficus glabrata</i>	SAMN31644061
F6	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644062
F7	<i>Ficus insipida</i>	SAMN31644063
F8	<i>Ficus insipida</i>	SAMN31644064
F9	<i>Ficus insipida</i>	SAMN31644065
F10	<i>Ficus insipida</i>	SAMN31644066
F11	<i>Ficus insipida</i>	SAMN31644067
F12	<i>Ficus insipida</i>	SAMN31644068
F13	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644069
F14	<i>Ficus maxima</i>	SAMN31644070
F15	<i>Ficus maxima</i>	SAMN31644071
F16	<i>Ficus maxima</i>	SAMN31644072
F17	<i>Ficus maxima</i> X <i>yoponensis</i>	SAMN31644073
F18	<i>Ficus maxima</i>	SAMN31644074
F19	<i>Ficus maxima</i>	SAMN31644075
F20	<i>Ficus maxima</i>	SAMN31644076
F21	<i>Ficus tonduzii</i>	SAMN31644077
F22	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644078
F23	<i>Ficus glabrata</i>	SAMN31644079
F24	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644080
F25	<i>Ficus glabrata</i> X <i>maxima</i>	SAMN31644081
F26	<i>Ficus yoponensis</i>	SAMN31644082
F27	<i>Ficus yoponensis</i>	SAMN31644083
F28	<i>Ficus yoponensis</i>	SAMN31644084
F29	<i>Ficus yoponensis</i>	SAMN31644085
F30	<i>Ficus yoponensis</i>	SAMN31644086

Table S2: Host fig sampling. Information includes unique individual identifier (F#), host fig species, and NCBI BioSample accession number.

Individual	Pollinator Wasp	Raw Reads	Contigs	Loci
FW220	<i>Tetrapus</i> sp. 1	4687114	238899	1560
FW221	<i>Tetrapus</i> sp. 1	4761416	215821	1549
FW257	<i>Tetrapus</i> sp. 1	4185059	215301	1547
FW258	<i>Tetrapus</i> sp. 1	3228608	155607	1481
FW187	<i>Tetrapus</i> sp. 2	3568557	169184	1504
FW188	<i>Tetrapus</i> sp. 2	5395745	252736	1629
FW189	<i>Tetrapus</i> sp. 2	2952646	150594	1462
FW190	<i>Tetrapus</i> sp. 2	3359756	170233	1547
FW191	<i>Tetrapus</i> sp. 2	4498239	219901	1612
FW192	<i>Tetrapus</i> sp. 2	2595606	125815	1441
FW193	<i>Tetrapus</i> sp. 2	4454112	216000	1572
FW194	<i>Tetrapus</i> sp. 2	3419353	169235	1511
FW207	<i>Tetrapus</i> sp. 2	2538297	140069	1458
FW259	<i>Tetrapus</i> sp. 2	3038800	161362	1451
FW498	<i>Tetrapus</i> sp. 2	1945324	97408	1333
FW499	<i>Tetrapus</i> sp. 2	1870326	89661	1338
FW500	<i>Tetrapus</i> sp. 2	2210143	115297	1386
FW501	<i>Tetrapus</i> sp. 2	2368081	128566	1399
FW518	<i>Tetrapus</i> sp. 2	2568465	147908	1484
FW519	<i>Tetrapus</i> sp. 2	2205107	117843	1463
FW520	<i>Tetrapus</i> sp. 2	1510105	72769	1301
FW521	<i>Tetrapus</i> sp. 2	1471472	66184	1260
FW522	<i>Tetrapus</i> sp. 2	1747608	85640	1298
FW523	<i>Tetrapus</i> sp. 2	1818483	92336	1323
FW524	<i>Tetrapus</i> sp. 2	1719095	78653	1298
FW574	<i>Tetrapus</i> sp. 2	1605183	78770	1321
FW244	<i>Tetrapus costaricanus</i>	3135303	145513	1409
FW245	<i>Tetrapus costaricanus</i>	4301642	194341	1440
FW246	<i>Tetrapus costaricanus</i>	4520791	211143	1471
FW247	<i>Tetrapus costaricanus</i>	2918422	132518	1356
FW248	<i>Tetrapus costaricanus</i>	5135872	247608	1531
FW203	<i>Tetrapus</i> sp. 3	1490824	62516	1295
FW204	<i>Tetrapus</i> sp. 3	1680263	78249	1315
FW205	<i>Tetrapus</i> sp. 3	1746078	84054	1308
FW206	<i>Tetrapus</i> sp. 3	1657271	74874	1270
FW208	<i>Tetrapus</i> sp. 3	1410770	58561	1244
FW210	<i>Tetrapus</i> sp. 3	2069568	106515	1360
FW224	<i>Tetrapus</i> sp. 3	3025803	146263	1428
FW225	<i>Tetrapus</i> sp. 3	4063502	205176	1549
FW226	<i>Tetrapus</i> sp. 3	3968433	201191	1509
FW381	<i>Tetrapus</i> sp. 3	2141143	105894	1334

FW513	<i>Tetrapus</i> sp. 3	2335878	122856	1414
FW514	<i>Tetrapus</i> sp. 3	864467	5561	650
FW515	<i>Tetrapus</i> sp. 3	1434738	59929	1303
FW516	<i>Tetrapus</i> sp. 3	1628628	72400	1308
FW517	<i>Tetrapus</i> sp. 3	2079692	104920	1373
FW573	<i>Tetrapus</i> sp. 3	2384204	124031	1383
FW610	<i>Tetrapus</i> sp. 3	8810987	331314	1607
FW691	<i>Tetrapus</i> sp. 3	3568872	196911	1467
FW716	<i>Tetrapus</i> sp. 4	7259025	314992	1655
FW717	<i>Tetrapus</i> sp. 4	3560025	191594	1432
FW211	<i>Tetrapus ecuadoranus</i>	3474554	189134	1508
FW212	<i>Tetrapus ecuadoranus</i>	6117746	320937	1643
FW213	<i>Tetrapus ecuadoranus</i>	6353427	320962	1611
FW214	<i>Tetrapus ecuadoranus</i>	3144128	162576	1454
FW216	<i>Tetrapus ecuadoranus</i>	2816255	146790	1360
FW217	<i>Tetrapus ecuadoranus</i>	5795350	307336	1579

Table S3: Pollinator wasp sequencing. Information includes unique individual identifier (FW#), pollinator wasp species, number of raw sequence reads, number of Trinity contigs, and number of UCE loci.

Individual	Host Fig	Raw Reads	Clusters	Loci
F1	<i>Ficus glabrata</i> X <i>maxima</i>	7244559	176519	32601
F2	<i>Ficus glabrata</i>	4887963	165416	24792
F3	<i>Ficus glabrata</i>	4214450	63549	34655
F4	<i>Ficus glabrata</i>	7119332	72796	36369
F5	<i>Ficus glabrata</i>	2583903	60137	20939
F6	<i>Ficus glabrata</i> X <i>maxima</i>	4060762	67775	35566
F7	<i>Ficus insipida</i>	1003795	44201	16507
F8	<i>Ficus insipida</i>	7909847	76907	36970
F9	<i>Ficus insipida</i>	2017468	50610	29427
F10	<i>Ficus insipida</i>	6030721	74683	36611
F11	<i>Ficus insipida</i>	6928368	67783	36858
F12	<i>Ficus insipida</i>	7347462	77847	37166
F13	<i>Ficus glabrata</i> X <i>maxima</i>	1772506	36250	16900
F14	<i>Ficus maxima</i>	2082861	53092	29079
F15	<i>Ficus maxima</i>	2054747	63114	27703
F16	<i>Ficus maxima</i>	2311959	57340	31056
F17	<i>Ficus maxima</i> X <i>yoponensis</i>	1547830	47958	23657
F18	<i>Ficus maxima</i>	24089307	93134	37423
F19	<i>Ficus maxima</i>	15711473	81113	37464
F20	<i>Ficus maxima</i>	1917990	40238	17481
F21	<i>Ficus tonduzii</i>	20840966	116802	36924
F22	<i>Ficus glabrata</i> X <i>maxima</i>	15431214	86425	37364
F23	<i>Ficus glabrata</i>	19882495	92835	37502
F24	<i>Ficus glabrata</i> X <i>maxima</i>	17770360	95279	37868
F25	<i>Ficus glabrata</i> X <i>maxima</i>	1947746	37936	18174
F26	<i>Ficus yoponensis</i>	25289469	97790	37606
F27	<i>Ficus yoponensis</i>	17247374	84773	37546
F28	<i>Ficus yoponensis</i>	10196819	74354	37302
F29	<i>Ficus yoponensis</i>	10046758	70781	35725
F30	<i>Ficus yoponensis</i>	12440898	78933	36314

Table S4: Host fig sequencing. Information includes unique individual identifier (F#), host fig species, number of raw sequence reads, number of RAD clusters, and number of RAD loci when requiring at least 50% sampling presence.