

Table S6. Orthologous gene comparison among genomes of 14 arthropod species

Species	BEMTA	ACYPI	RHOPR	NILLU	PEDHU	APIME	NASVI	TRICA	ANOGA	DROME	BOMMO	DANPL	DAPPU	TETUR
1:1:1	308	308	308	308	308	308	308	308	308	308	308	308	308	308
N:N:N	2987	2681	2097	2499	1893	1960	2250	2389	2786	2469	2125	2209	1759	2431
Hemiptera	23	13	14	17	0	0	0	0	0	0	0	0	0	0
Lepidoptera	0	0	0	0	0	0	0	0	0	0	2015	2052	0	0
Hymenoptera	0	0	0	0	0	701	678	0	0	0	0	0	0	0
Diptera	0	0	0	0	0	0	0	0	509	427	0	0	0	0
Insect	125	132	125	130	106	127	131	120	180	141	119	131	0	0
Other	8429	14126	6769	8173	6200	6837	7573	8103	7610	6456	6803	7343	7794	5129
SD	3481	7924	2148	7624	107	347	3515	1413	1279	950	571	1205	12069	4006
ND	5433	6925	3725	8820	2155	5034	2629	4298	1961	2938	2675	2971	8969	6342
total	20786	32109	15186	27571	10769	15314	17084	16631	14633	13689	14616	16219	30899	18216
Species-specific (SD+ND)	8914	14849	5873	16444	2262	5381	6144	5711	3240	3888	3246	4176	21038	10348
# With orthologs	11872	17260	9313	11127	8507	9933	10940	10920	11393	9801	11370	12043	9861	7868
Species-specific%	42.88%	46.25%	38.67%	59.64%	21.00%	35.14%	35.96%	34.34%	22.14%	28.40%	22.21%	25.75%	68.09%	56.81%
With orthologs%	57.12%	53.75%	61.33%	40.36%	79.00%	64.86%	64.04%	65.66%	77.86%	71.60%	77.79%	74.25%	31.91%	43.19%

1:1:1 refers to single-copy gene orthologs found across all 14 lineages. N:N:N refers to multi-copy gene paralogs found across all 14 lineages. Hemiptera, Lepidoptera, Hymenoptera, Diptera and Insect refer to taxon-specific genes that are present only in the relevant lineage. SD indicates species-specific duplicated genes. ND indicates species-specific un-clustered genes. Abbreviatoin: MED/Q (BEMTA), Acyrthosiphon pisum (ACYPI), Anopheles gambiae (ANOGA), Apis mellifera (APIME), BEMTA, Bombyx mori (BOMMO), Danaus plexippus (DANPL), Drosophila melanogaster (DROME), Nasonia vitripennis (NASVI), Nilaparvata lugens (NILLU), Pediculus humanus (PEDHU), Rhodnius prolixus (RHOPR) and Tribolium castaneum (TRICA), Daphnia pulex (DAPPU), Tetranychus urticae (TETUR).