

Table S10: Quartet sampling (QS) scores (QC/QD/QI) from analysing the best ML tree inferred from the nucleotide dataset with 1st and 2nd codon positions included (sm-nt12). Bootstrap support (BS) and the QS scores are given as follows: node label = label of the internal or terminal branch, freq 0 = number of concordant replicates over the non-uncertain total, qc = Quartet Concordance score (internal branches only; measures frequency of concordant over discordant), qd = Quartet Differential score (internal branches only; measures skew in the two discordant tree counts), qi = Quartet Informativeness score (internal branches only; measures number of replicates that fail likelihood cut off), num replicates = number of replicates actually sampled per branch, and count 0 = count of the number of QS replicates for the concordant quartet arrangement, count 1 / 2 = count of the number of QS replicates for one of the discordant quartet arrangements.

taxonomic group(s)	BS	node label	freq0	qc	qd	qi	count 0	count 1	count 2	num replicates
Ammoplanidae and Anthophila	77	QS97	0.263	-0.074	0.571	0.285	15	12	30	200
Psenidae + <i>E. concinnus</i> and (Anthophila + Ammoplanidae)	77	QS96	0.250	-0.081	0.567	0.400	20	17	43	200
Psenidae and <i>E. concinnus</i>	86	QS141	0.933	0.735	1.00	0.450	84	3	3	200
Pemphredonini <i>partim</i> . + (Philanthidae + <i>Eremiasphecium</i>) to all remaining species	67	QS95	0.909	0.689	0.286	0.385	70	6	1	200
Pemphredonini <i>partim</i> . to (Philanthidae + <i>Eremiasphecium</i>)	86	QS146	0.695	0.287	0.480	0.410	57	19	6	200
Philanthidae and <i>Eremiasphecium</i>	87	QS153	0.575	0.213	0.308	0.765	88	10	55	200
Bembicidae to all remaining species	30	QS12	0.283	-0.042	0.667	0.230	13	22	11	200
Astatidae to all remaining species	39	QS13	0.352	0.003	0.913	0.355	25	25	21	200
Heterogynaidae + (Mellinidae + (Crabronidae + Sphecidae)) to all remaining species	100	QS79	0.920	0.719	0.250	0.500	92	7	1	200
Heterogynaidae to (Mellinidae + (Crabronidae + Sphecidae))	42	QS14	0.336	-0.066	0.541	0.640	43	62	23	200
Mellinidae to (Crabronidae + Sphecidae)	43	QS15	0.678	0.298	0.324	0.575	78	31	6	200
Crabronidae and Sphecidae	44	QS16	0.488	0.054	0.818	0.430	42	18	26	200
Ampulicidae to all remaining species	100	QS83	0.984	0.916	0.667	0.930	183	1	2	200