Description of Additional Supplementary Files

File Name: Supplementary Information.

Description: Supplementary Methods, Figures, Tables and Discussion referenced in the main

text of this article.

File Name: Supplementary Data 1.

Description: Taxon list, voucher deposition and collection information, sequence accessions and

results of UCE sequencing.

File Name: Supplementary Data 2.

Description: Specifications for alignments, partitioning and model choice.

File Name: Supplementary Data 3. Description: GC content per sequence.

File Name: Supplementary Data 4.

Description: Summary statistics for UCE loci.

File Name: Supplementary Data 5.

Description: Results of Four-cluster Likelihood Mapping (FcLM) analyses for major phylogenetic

hypotheses.

File Name: Supplementary Data 6.

Description: Summary of divergence age estimations.

File Name: Supplementary Data 7.

Description: Model scores for ancestral character reconstructions of life strategies in

Hymenoptera.

File Name: Supplementary Data 8.

Description: Probabilities for ancestral character reconstructions of life strategies in

Hymenoptera.

File Name: Supplementary Data 9.

Description: Evolutionary rate dynamics estimated with BAMM for selected clades.

File Name: Supplementary Data 10.

Description: Summary of models tested in the HiSSE framework.

File Name: Supplementary Data 11.

Description: Parameter estimates of the best-fitting models tested in the HiSSE framework.

File Name: Supplementary Data 12.

Description: Tip state probabilities estimated with HiSSE for putative key innovations in

Hymenoptera.

File Name: Supplementary Data 13.

Description: Tip rates and states estimated with MiSSE.

File Name: Supplementary Data 14. Description: FcLM taxon groups.

File Name: Supplementary Data 15.

Description: Information on fossil calibrations.

File Name: Supplementary Data 16.

Description: Comprehensive list for clade specific data used in ancestral character

reconstructions, HiSSE and BAMM analyses.

File Name: Supplementary Data 17.

Description: Trait specific sampling frequencies employed in HiSSE.