Eletronic Suppementary Information (ESI) Figures

A proteotranscriptomic study of silk-producing glands from the orb-weaving spiders

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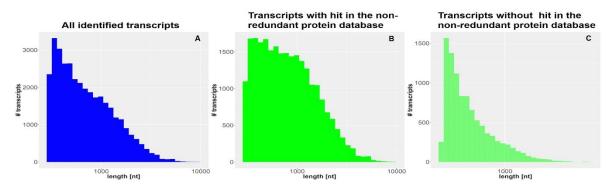


Fig. S1. Spider silk-producing glands transcriptome. Length distribution of contigs obtained from Trinity algorithm divided into (A) transcripts overall, (B) transcripts that have a match to the NCBI non-redundant database and (C) transcripts without a match to the NCBI non-redundant database.

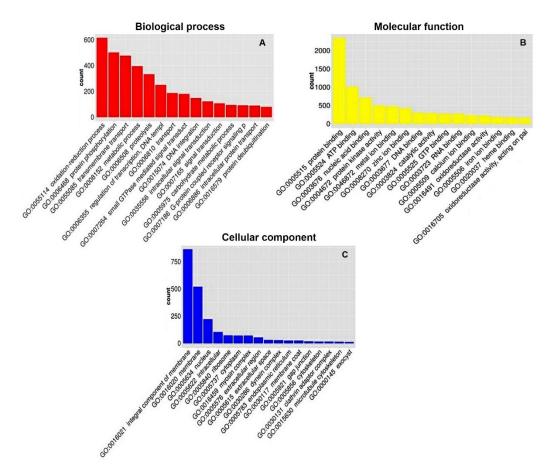


Fig. S2. Gene Ontology (GO) terms classification. The most abundant Gene ontology (GO) categories for (A) biological process, (B) molecular function, and (C) cellular component in *N. clavipes* silk-producing glands transcriptome.

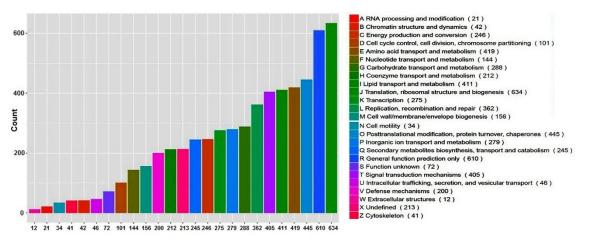


Fig. S3. Clusters of Orthologous Groups (COG) database. Distribution of COG (Clusters of Orthologous Groups) functional annotation in *N. clavipes* silk-producing glands transcriptome.

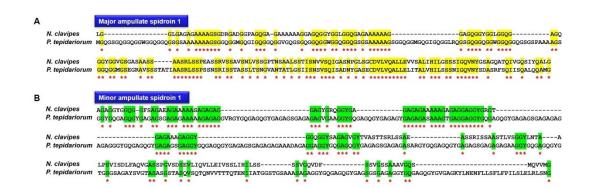


Fig. S4. Multiple sequence alignment viewer of protein sequences (fragments) of orthologous genes annotated as spidroins between *N. clavipes* silk-producing glands and *P. tepidariorum* spiders. (A) Major ampullate spidroin 1, conserved residues are colored in yellow; and (B) Minor ampullate spidroin 1, conserved residues are colored in green. Highly conserved residues are marked with an asterisk for all alignments.

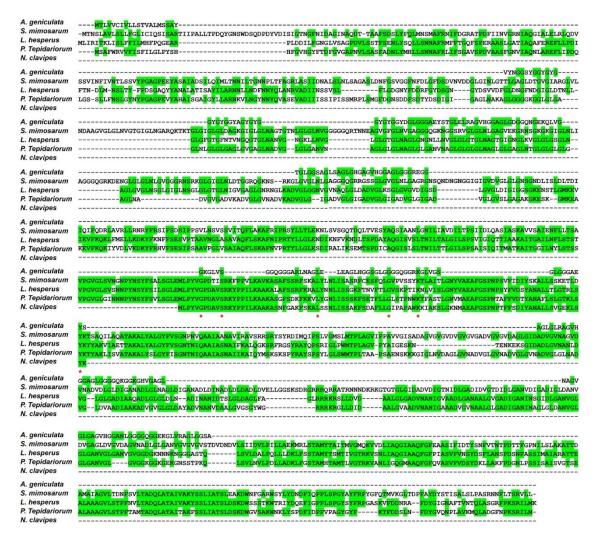


Fig. S5. Multiple sequence alignment viewer. Protein sequence (fragments) alignment of orthologous gene annotated as spidroin protein Sp-1339 that is shared among all five species of spiders analyzed. Conserved residues are colored in green; and highly conserved residues are marked with an asterisk.

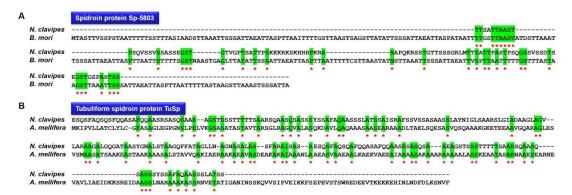


Fig. S6. Multiple sequence alignment viewer of protein sequences (fragments) of orthologous genes annotated as spidroins between *N. clavipes* silk-producing glands and two species of insects. (A) Spidroin protein Sp-5803 shared with *B. mori*; and (B) Tubuliform spidroin protein TuSp shared with *A. mellifera*. Conserved residues are colored in green; and highly conserved residues are marked with an asterisk.