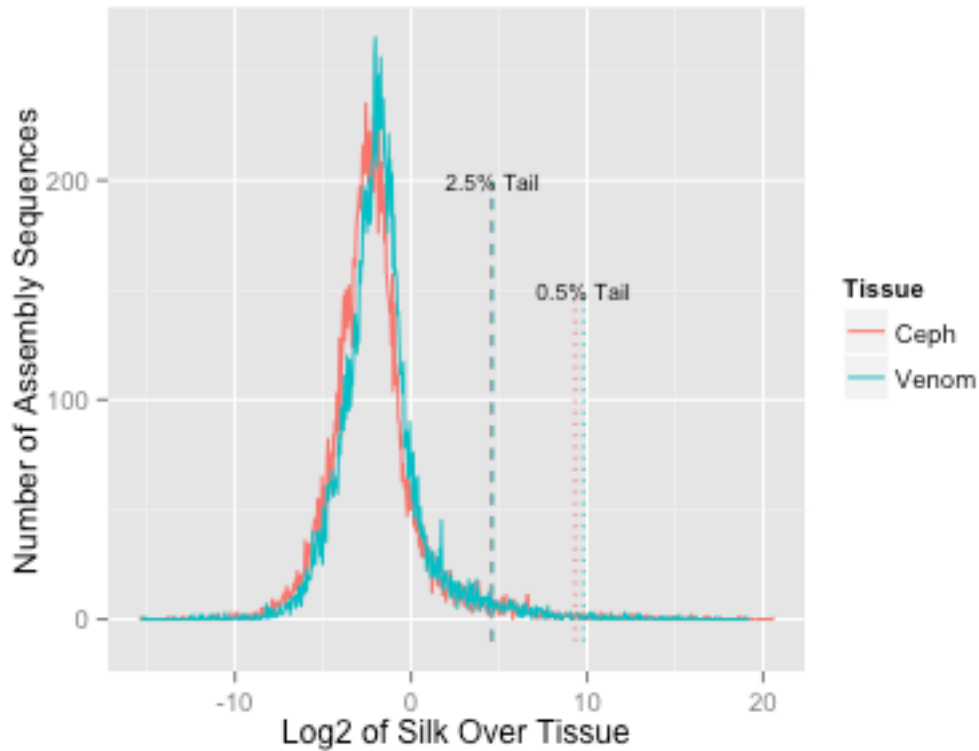
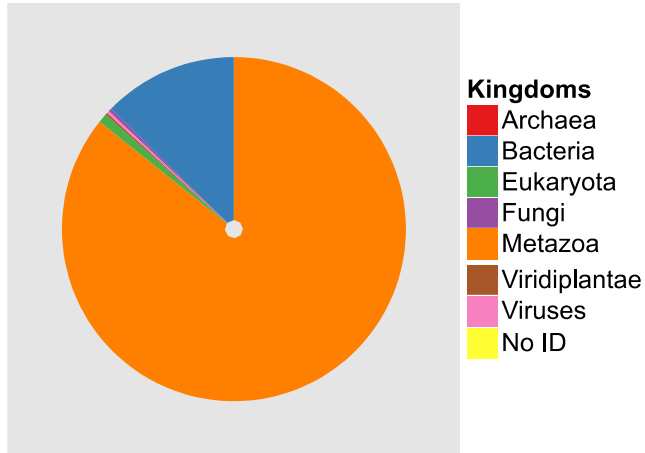


## Supplementary Figures

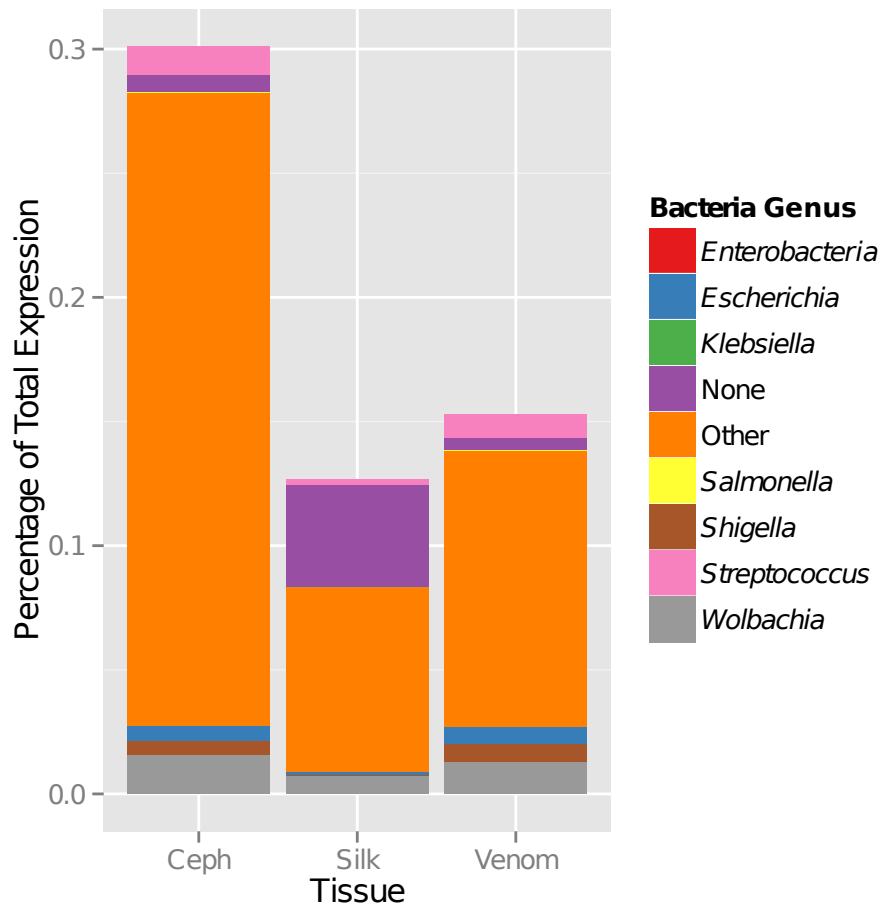


**Figure S1. Distribution of log<sub>2</sub> of silk:cephalothorax (blue) and silk:venom (orange) eCPM ratios for black widow unique assembled transcripts (UATs).** The cutoffs for both the 2.5% tail (dashed line) and the 0.5% tail (dotted line) are shown for both the silk:cephalothorax (blue) and the silk:venom (orange). UATs with eCPM < 1 in all tissues were excluded from analysis. UATs with eCPM = 0 in venom glands or cephalothorax were excluded from calculation of ratios.

## UniProt Hits to Different Kingdoms

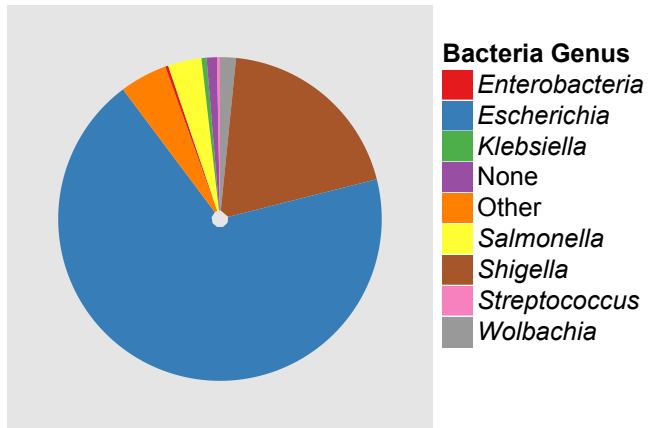


**Figure S2. Kingdom of most similar UniProtKB protein of annotated black widow assembled transcripts.** For all the full assembled transcripts, the most similar UniProt sequence was determined using lowest E-scores, with a maximum allowed E-score of  $1e-5$ . The kingdom was assigned using the UniProt taxonomic ID.

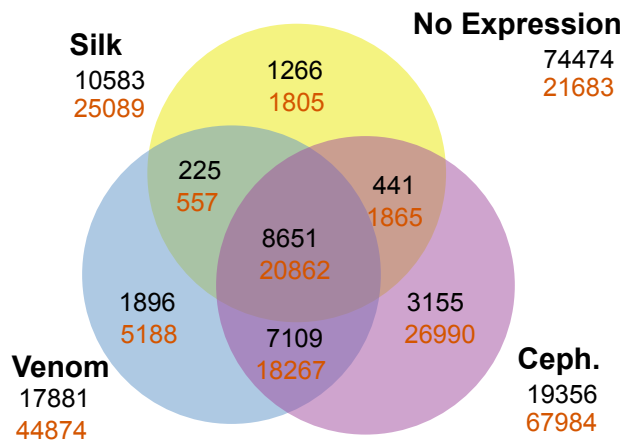


**Figure S3. Percent expression contributed by suspected bacterial-derived unique assembled transcripts (UATs).** Expression is broken down by the genus of bacteria. The genera were assigned using the UniProt taxonomic ID of the best BLASTX match to assembled transcripts.

## Genera of Suspected Bacterial Contaminants



**Figure S4. Proportion of bacterial genera for suspected bacterial-derived unique assembled transcripts (UATs).** The most similar UniProtKB sequence was determined using lowest E-scores, with a maximum allowed E-score of  $1e-5$ . The genus for each transcript was assigned using the UniProt taxonomic ID. Only UATs with a bacterial sequence as the most similar annotated UniProt hit were included.



**Figure S5. Number of unique assembled transcripts (UATs) expressed in each black widow tissue.** The number of UATs that are expressed in each tissues either above 1 eCPM (shown in black) or above 0 eCPM (shown in orange) in the silk glands (yellow circle), the cephalothorax (pink circle), and the venom gland (blue circle).