

# Identification of effector proteins from generalist herbivore, *Spodoptera litura* using *de novo* transcriptomics

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\*equal contribution

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## Additional files

**Additional file 1: Figure S1.** Species distribution and similarity percentage of all the potential effector proteins in head and salivary gland against UniProt (Order: Lepidoptera).

**Additional file 1: Figure S2.** Enriched GO terms.

**Additional file 1: Figure S3.** Enriched GO terms of potential effector proteins assembled by referenced genome of *S. litura*.

**Additional file 1: Figure S4.** The enriched COG functions for predicted potential effector proteins in head and salivary gland of *S. litura*.

**Additional file 1: Figure S5.** The predicted Pfam domains of potential effector proteins that only present in plant fed salivary gland (SGF) of *S. litura*.

**Additional file 2: Table S1.** Annotation summary of potential effector proteins.

**Additional file 3: Table S2.** Annotation summary of potential effector proteins (based of reference genome)

**Additional file 4: Table S3.** The list of KEGG pathways.

**Additional file 5: Table S4.** The Pfam domains found in the head and salivary gland transcriptome.

**Additional file 6: Table S5.** Proteins with interesting functions annotated to Pfam and Nr database.

**Additional file 7: Table S6.** List of proteins functionally annotated to Nr database but with no Pfam domain.

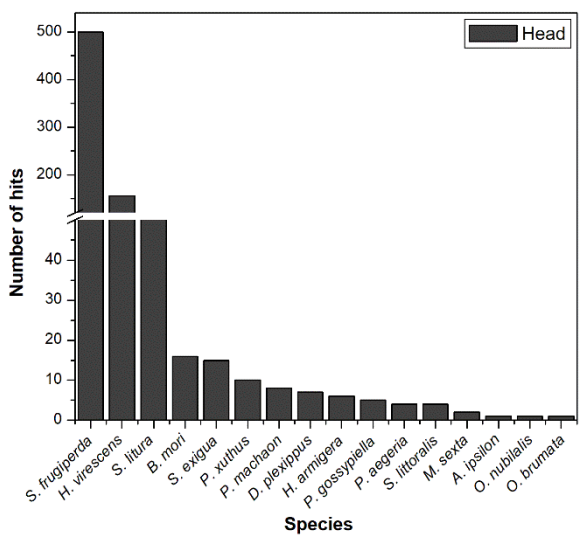
**Additional file 8: Table S7.** Annotation summary of potential effector proteins (based of Arabidopsis fed *S. litura*).

**Additional file 9: Table S8.** Primers used for RT-PCR of highly expressed genes in head and salivary gland.

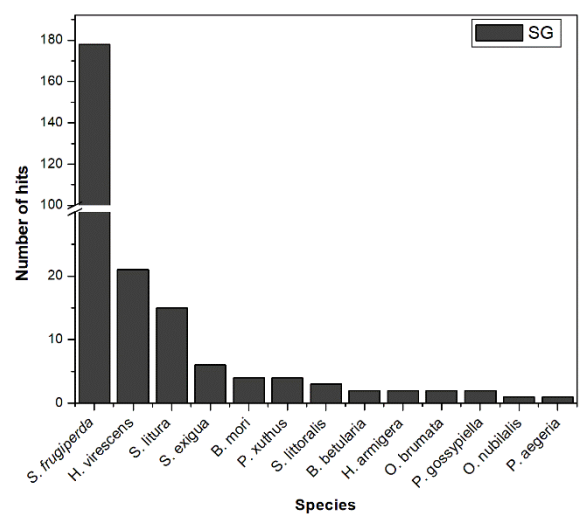
**Additional file 10: Figure R1-R17.** Raw and unprocessed gel pictures corresponding to Fig 9

**Figure S1**

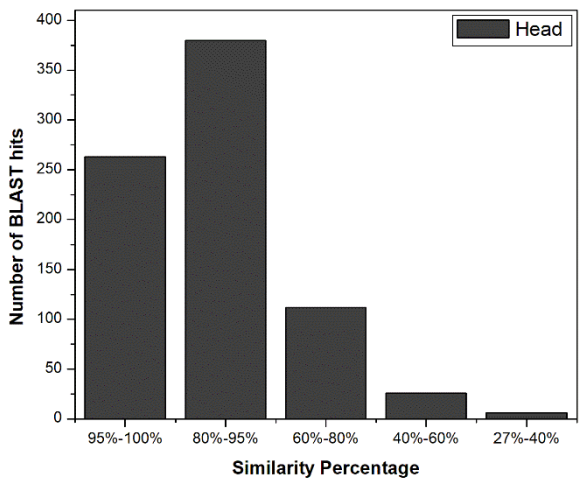
**A**



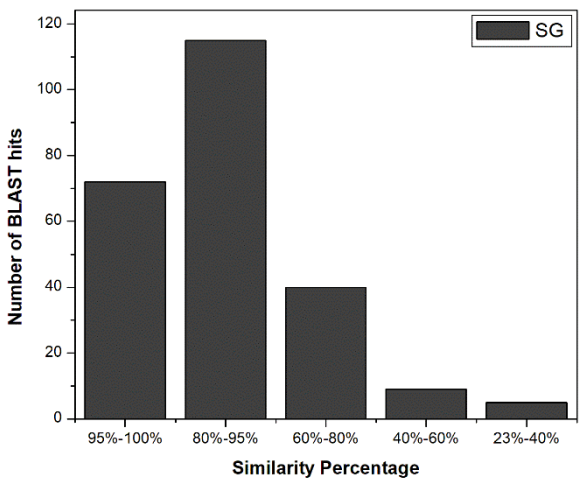
**B**



**C**

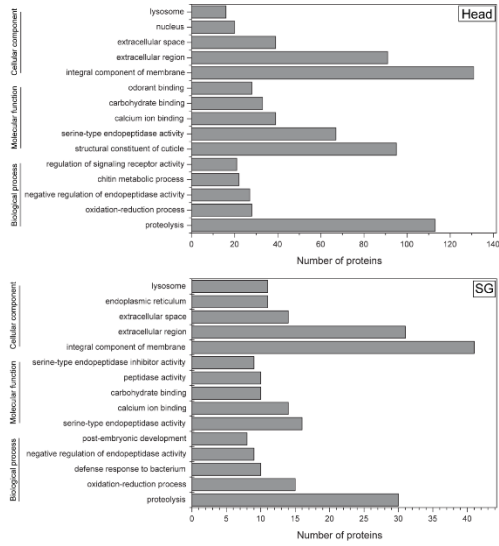


**D**



**Figure S2**

**A**

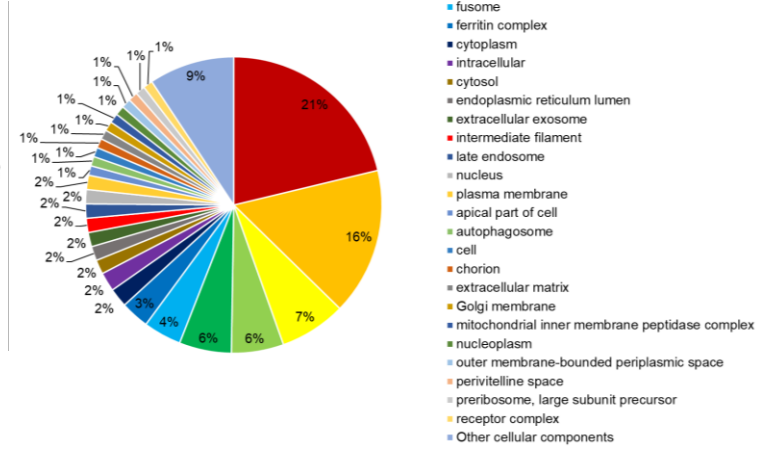
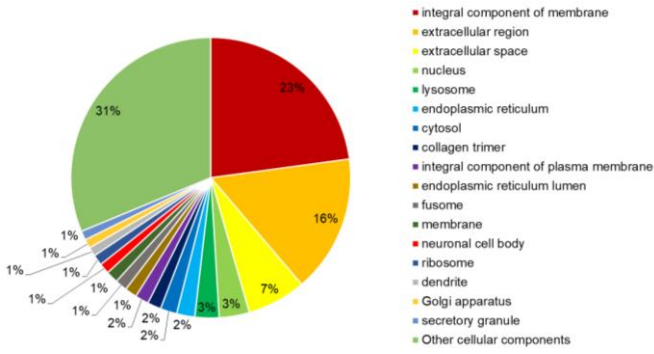


**B**

**Cellular component**

**Head**

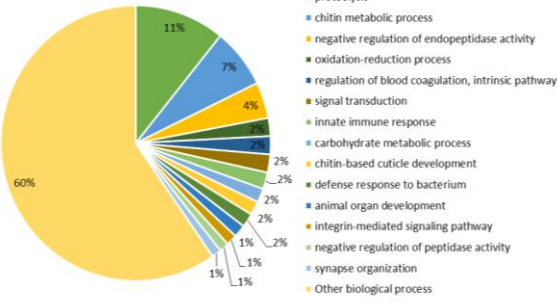
**SG**



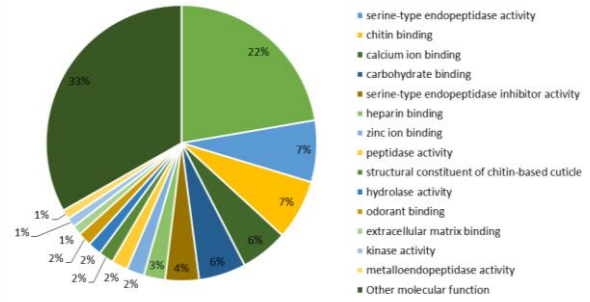
**Figure S3**

**A**

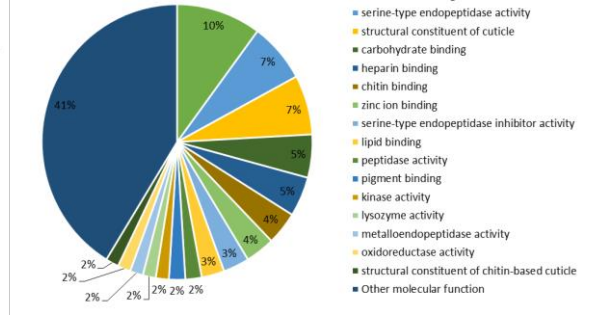
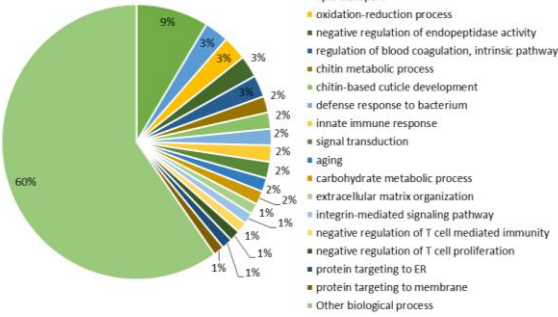
**Head**



**Molecular function**

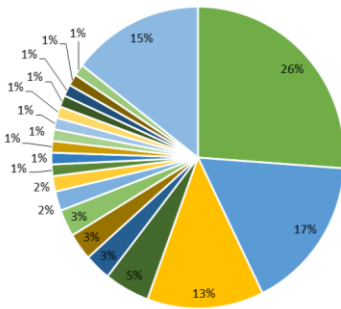


**SG**



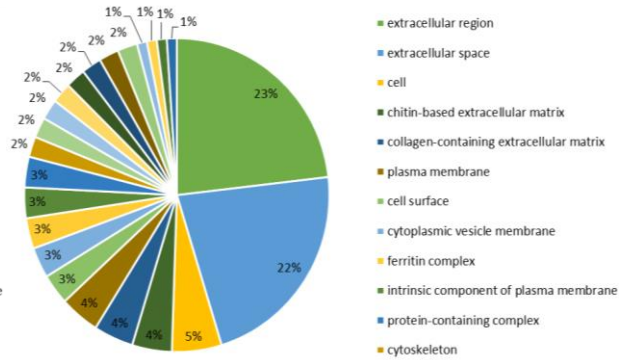
**B**

**Head**



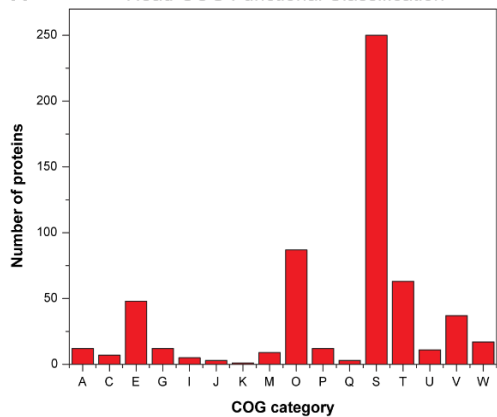
**Cellular component**

**SG**

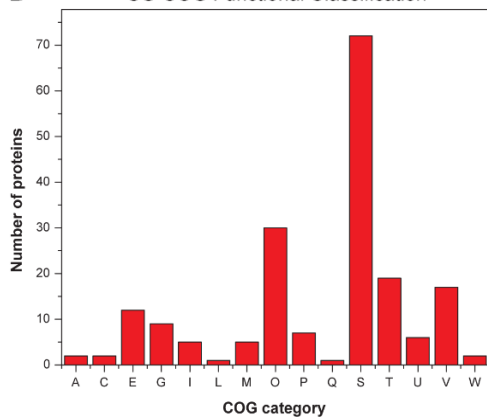


**Figure S4**

**A** Head-COG Functional Classification



**B** SG-COG Functional Classification



- (A) RNA processing and modification
- (C) Energy production and conversion
- (E) Amino acid transport and metabolism
- (G) Carbohydrate transport and metabolism
- (I) Lipid transport and metabolism
- (L) Replication, recombination and repair
- (M) Cell wall/membrane/envelope biogenesis
- (O) Post-translational modification, protein turnover, and chaperones
- (P) Inorganic ion transport and metabolism
- (Q) Secondary metabolites biosynthesis, transport, and catabolism
- (S) Function unknown
- (T) Signal transduction mechanisms
- (U) Intracellular trafficking, secretion, and vesicular transport
- (V) Defense mechanisms
- (W) Extracellular structures

Figure S5

