

A

Bruchini: A and X dNdS violin plot and pos. selected genes

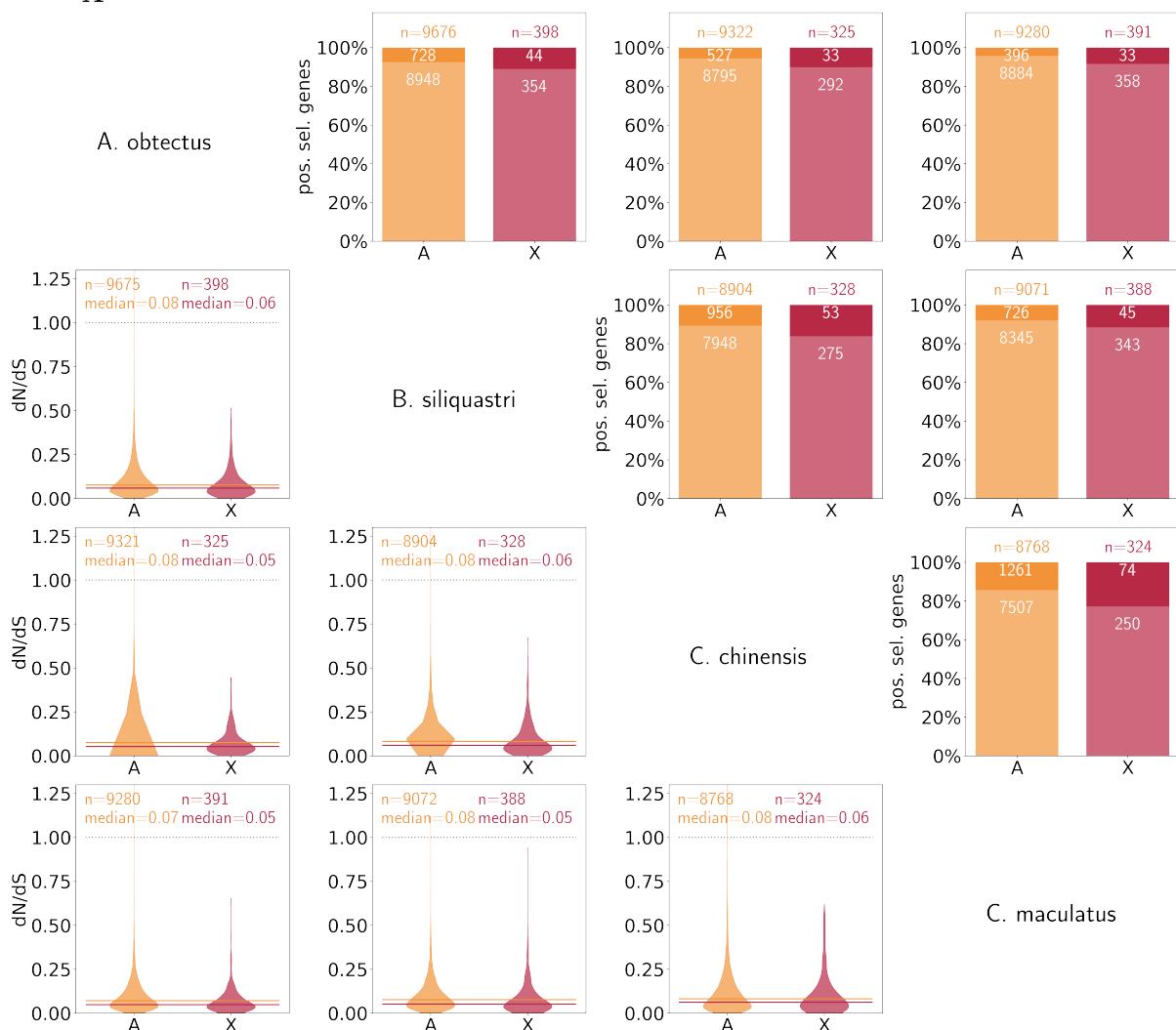
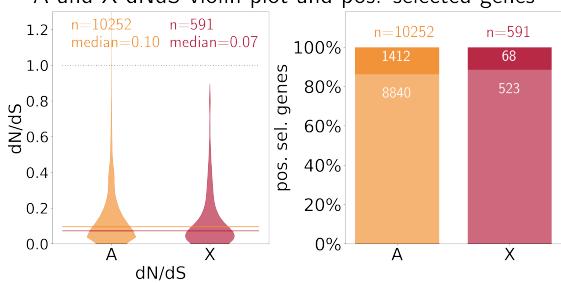
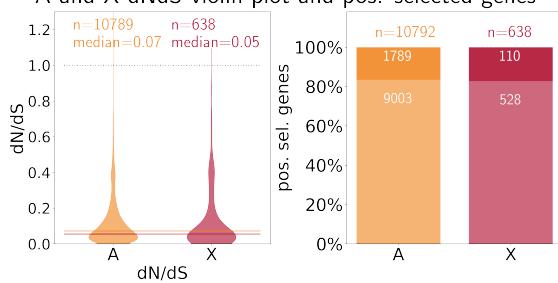
**B**C. magnifica vs. C. septempunctata:
A and X dNdS violin plot and pos. selected genes**C**T. castaneum vs. T. freemani:
A and X dNdS violin plot and pos. selected genes

Figure 1: d_N/d_S and abundance of positively selected genes. *Bottom left:* Pairwise comparisons between members of three species groups with violin plots of d_N/d_S values for X-linked and autosomal 1-to-1 orthologs, and scatterplots of d_S vs. d_N . Permutation tests ($n=10000$) show that d_N/d_S is significantly lower for X-linked orthologs in all comparisons within *Bruchini* (A) and *Coccinella* (B), but not *Tribolium* (C). *Top right:* The bar plot show the percentage of genes that contain codons under positive selection according to paml site-model analysis (likelihood ratio test comparison between paml site models M1a and M2a). *Bruchini* (A), show an enrichment of positively selected X-linked orthologs in all pairwise comparisons, while *Coccinella* (B) and *Tribolium* (C) show no significant difference.

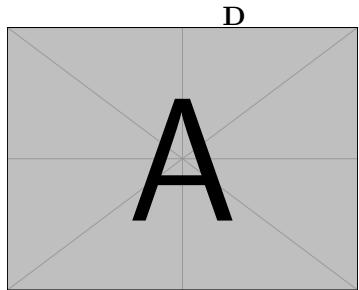
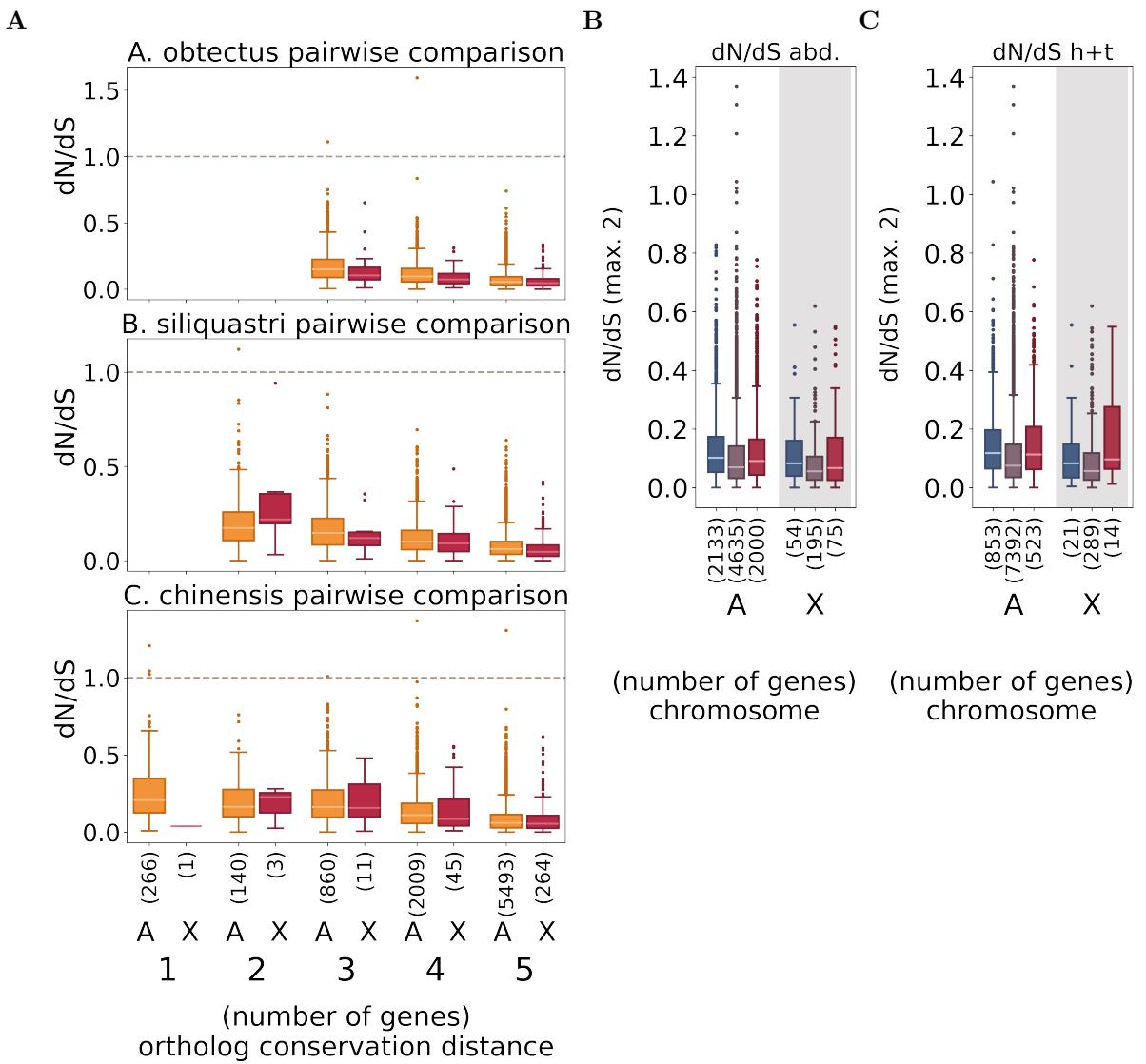


Figure 2: Differential expression analysis