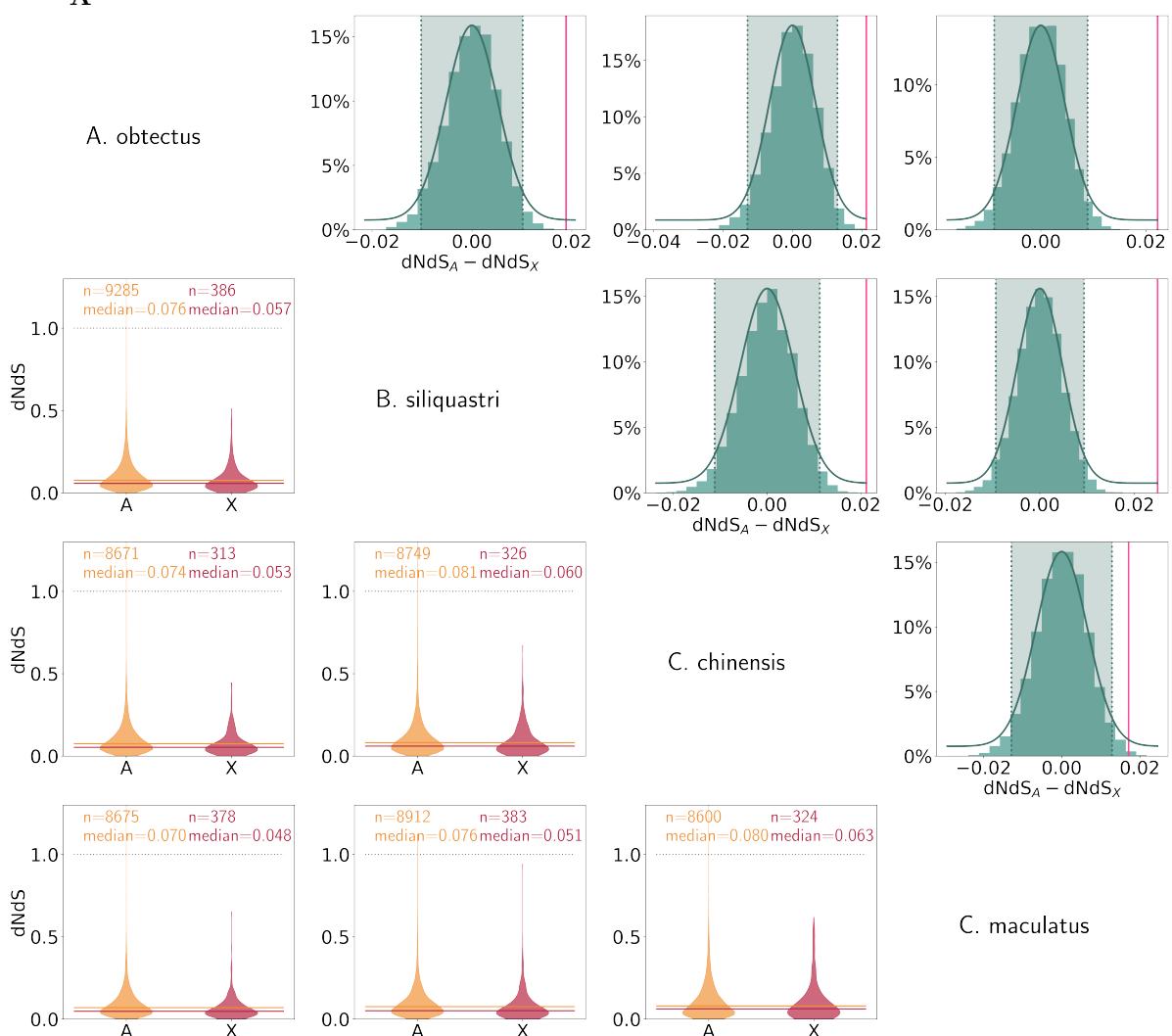
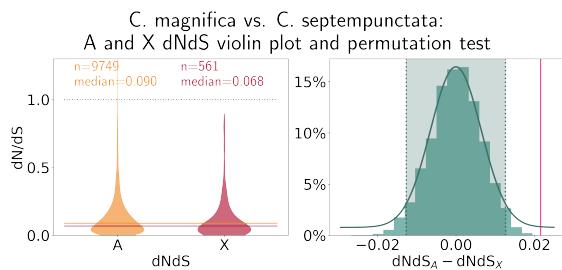
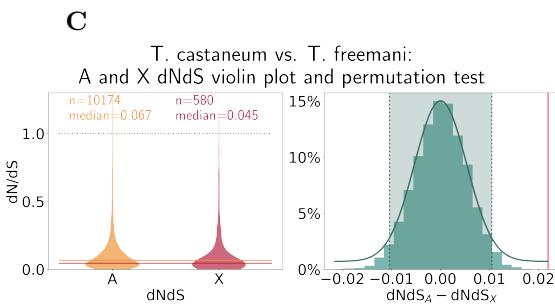


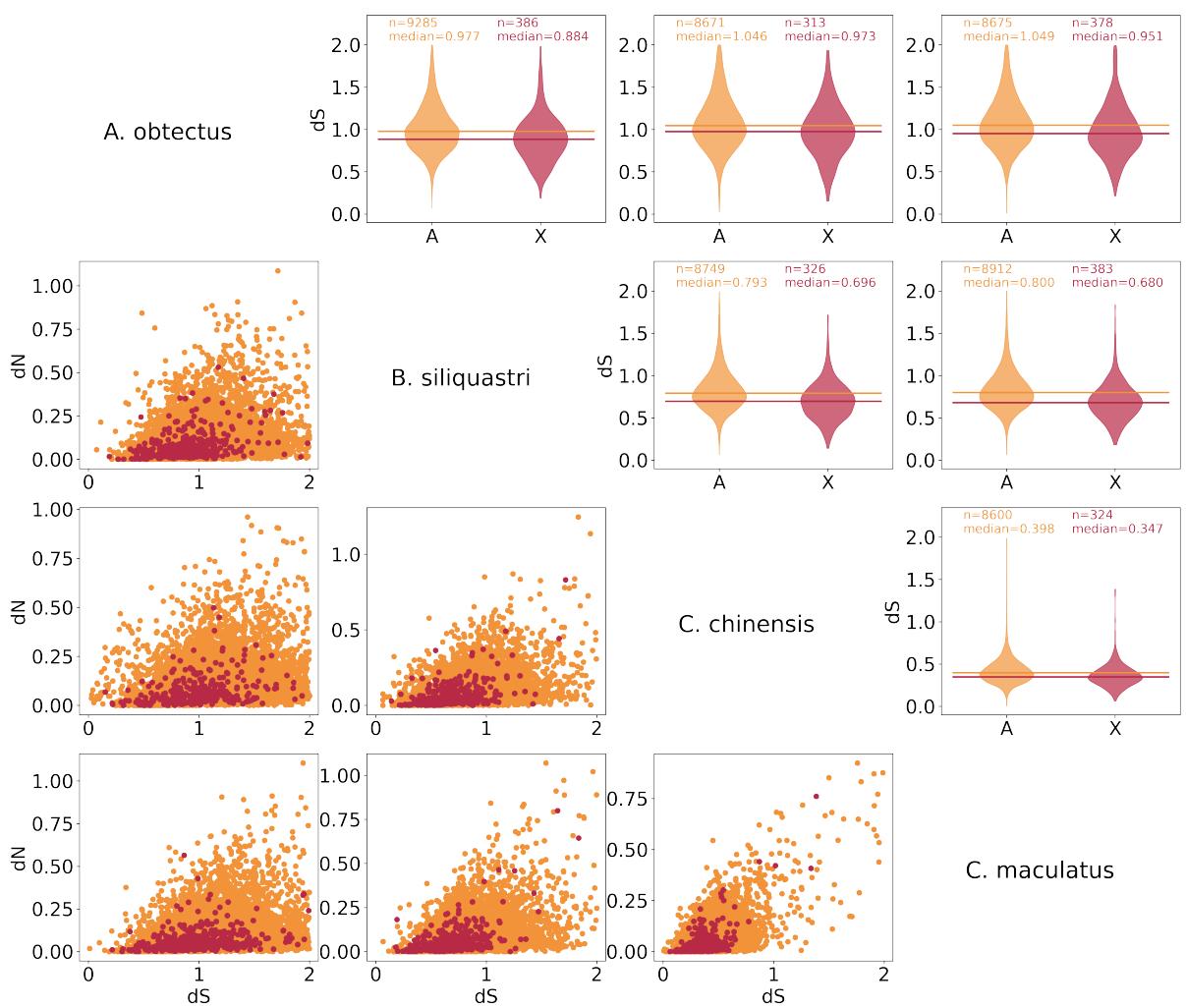
**A**

## Bruchini: A and X dNdS violin plot and permutation test

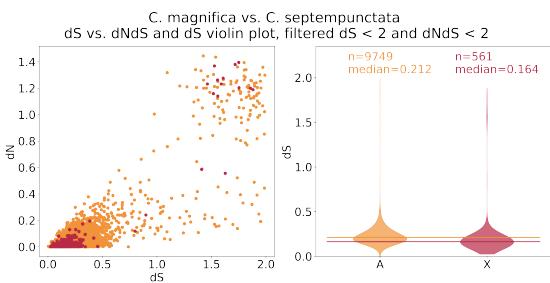
**B****C**

**Figure 1:  $d_N/d_S$  ratio and permutation tests for significance.** 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 permutation tests (10000 permutations) to assess significance. All pairwise comparisons show significantly lower  $d_N/d_S$  values on X-linked orthologs. The within-family comparisons are performed for three species groups: *Bruchini* (**A**), *Coccinella* (**B**) and *Tribolium* (**C**).

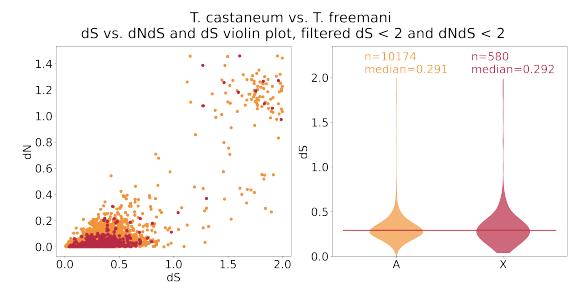
**A** Bruchini: dS vs. dNdS and dS violin plot, filtered dS < 2 and dNdS < 2



**B**



**C**



**Figure 2:  $d_S$  vs.  $d_N$  scatterplots and violin plots of  $d_S$  values from X-linked and autosomal orthologs.** Pairwise comparisons between members of three species groups with violin plots of  $d_S$  values for X-linked and autosomal 1-to-1 orthologs, and scatterplots of  $d_S$  vs.  $d_N$ .  $d_S$  is lower for X-linked orthologs in all comparisons except *Tribolium*, where it is almost equal. The within-family comparisons are performed for three species groups: *Bruchini* (**A**), *Coccinella* (**B**) and *Tribolium* (**C**).