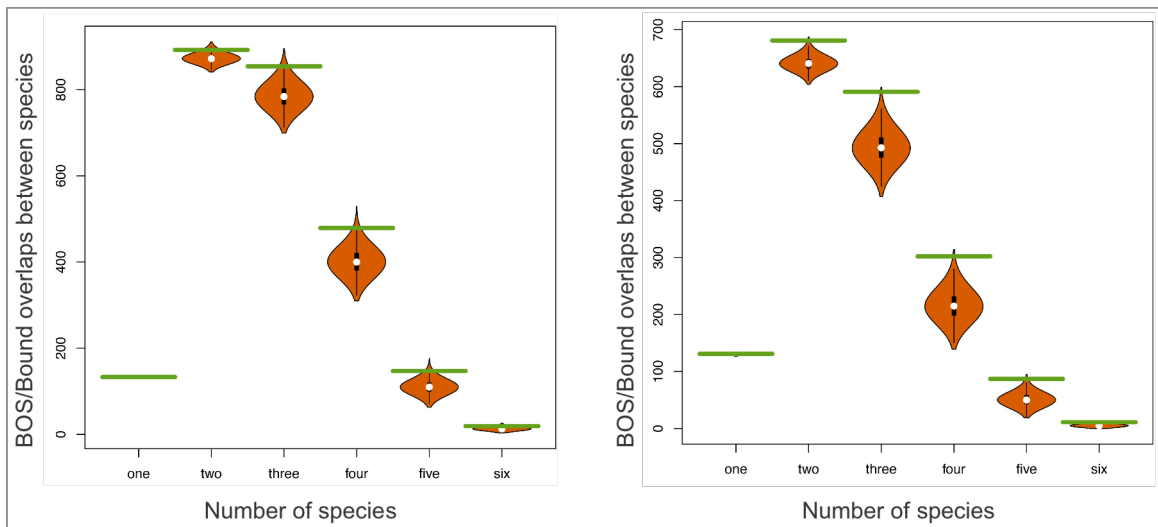


**Supplemental Figure S10** – A) Venn diagram shows that in gibbon most BOS overlapping with TAD boundaries are shared between the three bins (200-400, 400-600, 600-800 kb), indicating that classifying TADs into size bins does not compromise the association with TAD boundaries. B) Venn diagrams showing BOS/Bound of 500kb-1Mb and 400-600 kb shared amongst primates (gibbon, human, and rhesus).



**Supplemental Figure S11** - Violin plots show the distribution of BOS intersecting TAD boundaries shared across species in 10,000 permutations in two size bins (400-600Kb and 500Kb-1Mb). Each permutation consists of first randomly choosing  $N_i$  BOS to overlap with TAD boundaries in each species (where  $N_i$  is the number of true overlaps in species  $i$ ) and then counting how many of these are shared between one, two, three, four, five or six species. All combinations are counted such that, for example, a BOS that overlaps TAD boundaries in three species is also counted as three two-species overlaps. Green lines indicate the observed overlap counts.