



**Supplemental Figure S12. Genomic distribution of ARs on the oscine branch of vocal learning origin.** Density of ARs per 1 Mb in 100 kb sliding windows, significant enrichments over independence are red. Although, GC biased gene conversion was not identified in the oscine branch of origin for the ARs comprising the hotspot on Chromosome 1 it resides in a region of very high GC biased gene conversion in oscines overall (Supplementary Fig. S2) and should be interpreted with caution.