



**Supplemental Figure S7. AR hotspots and conserved elements.** (A-C) Relationship between ECE density and AR density in the genome (per Mb) for ARs in each of the three vocal learning clades. Red dots, AR hotspots. The 1:1 line plotted in gray represents the maximum possible number of ARs for a given number of ECEs. (D) Linear  $R^2$  values for a relationship between ECEs and ARs for all regions (black and red) or for exclusively in hotspots (red only). Parrots' AR and ECEs counts are more correlated than oscine songbirds or hummingbirds, but parrot hotspots are not restricted to regions with large numbers of conserved elements.