

Supplementary Figure 9. Time-calibrated maximum clade credibility tree showing species level relationships of Coraciiformes based on 500 ultraconserved elements, fossil calibrations, and maximum likelihood topology constraints. Nodes are highly supported unless indicated otherwise. Node ages were estimated in BEAST with three fossil calibrations (Table S2), indicated by circles at nodes, and two secondary calibrations (see text) indicated by empty red circles; 95% credible intervals of divergence times are denoted by horizontal grey bars at nodes. Ancestral ranges were estimated with the DEC+*j* model from current species' distributions, indicated by coloured squares at tips. Coloured squares at nodes indicate inferred ancestral ranges. Elongated rectangles indicate *a posteriori* added fossil taxa that represent Holarctic distributions of the group. Note that distributions of outgroup taxa were coded to represent the entire distribution of the corresponding taxonomic family. Areas inferred: A) North America; B) Caribbean islands, including Trinidad; C) South America; D) Palearctic; E) Africa and Madagascar; F) Indomalaya; G) Wallacea and the Philippines; H) New Guinea and Australia; I) Oceania, including the Bismarck Archipelago and New Zealand.

