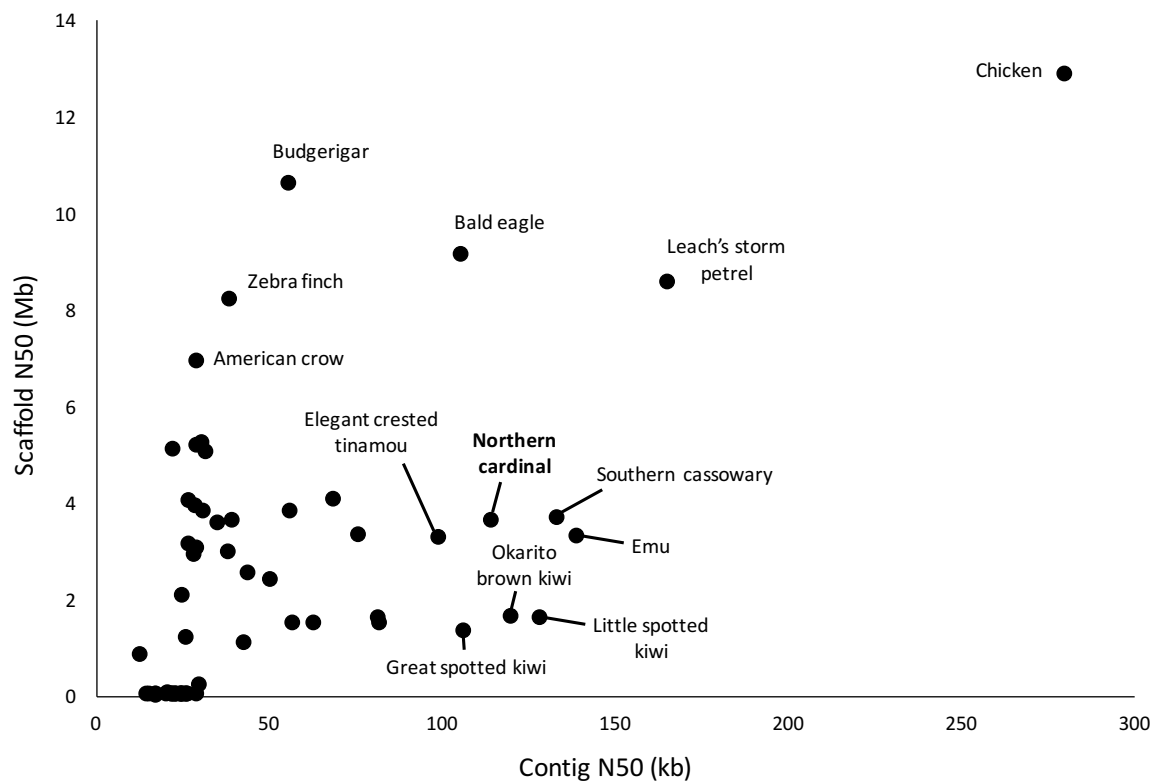
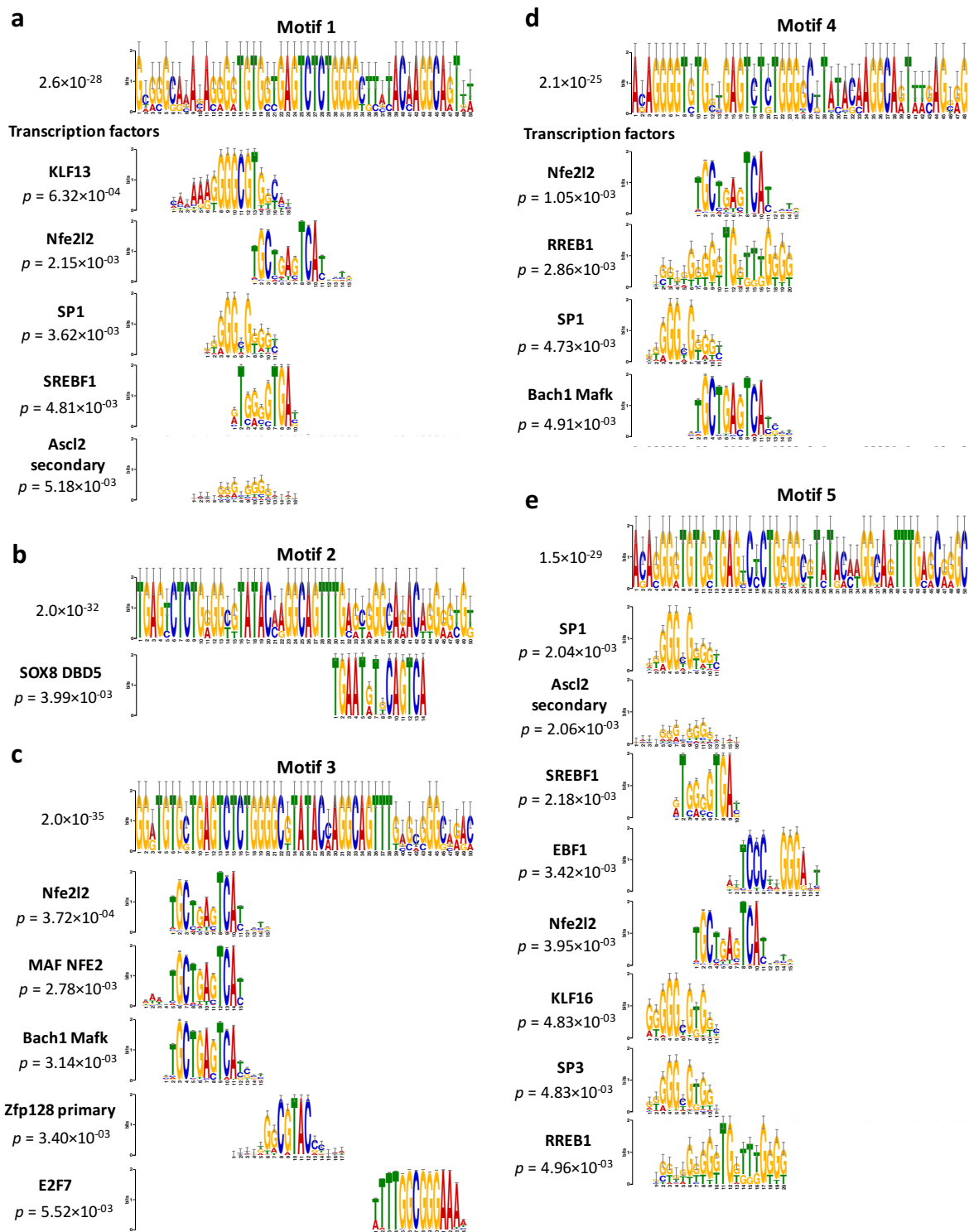


## Supplementary Information



**Figure S1** Scaffold N50 in megabases (Mb) versus contig N50 in kilobases (kb) for 65 draft avian genomes from Jarvis *et al.* (2014), Grayson *et al.* (2017), and this study. Common names are provided for the draft genomes with the highest scaffold N50 or contig N50. The northern cardinal (*Cardinalis cardinalis*) is shown in bold.



**Figure S2** Identification of potential binding transcription factors in the unique 5920 bp insertion upstream of the CYP2J19 gene in *C. cardinalis*. (a–e) Logos of five motifs with statistically significant e-values provided next to the logos. Transcription factors predicted for the 5 motifs are shown below the query motifs.