

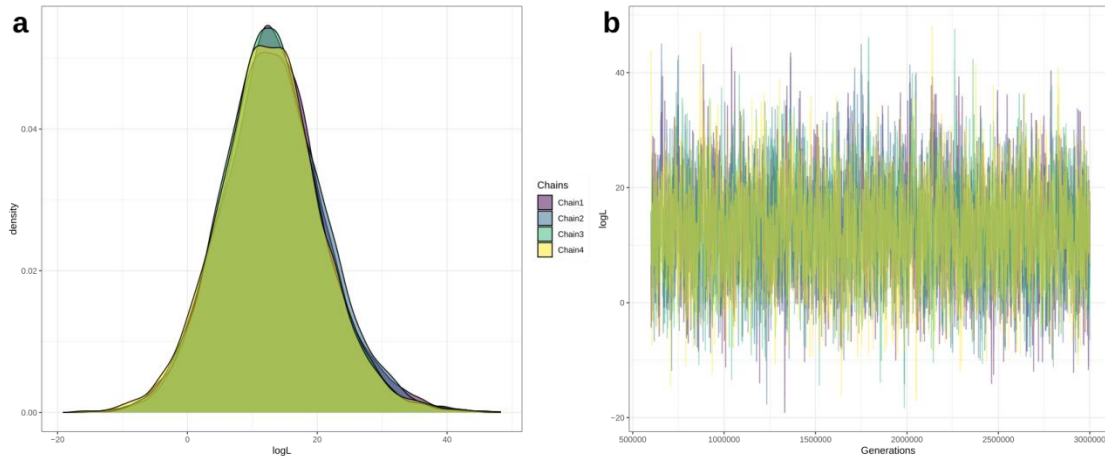


Fig. S1 Convergence assessment of the relationship between felid prey face silhouettes and prey size. a) Overlapped density plots color-coded by chain. b) Traces of posterior estimates for the log-likelihood (logL) parameter. The Effective Sample Size (ESS) exceeded 200 for all runs: Chain 1 (824.14), Chain 2 (551.07), Chain 3 (708.57), and Chain 4 (738.54). Different colors represent distinct chains. Note the convergence of each chain within a similar parameter space

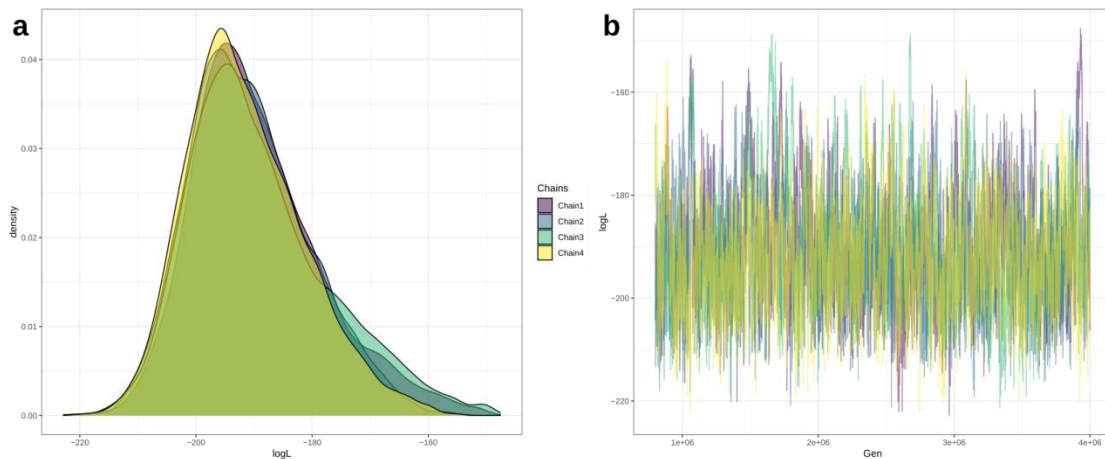


Fig. S2 Convergence assessment of the relationship between felid prey face silhouettes and average weight of the cat species. a) Overlapped density plots colored by chain. b) Traces of posterior estimates for the log-likelihood (logL) parameter. The Effective Sample Size (ESS) exceeded 200 for all runs: Chain 1 (281.09), Chain 2 (293.99), Chain 3 (231.70), and Chain 4 (268.55). Different colors represent distinct chains. Note the convergence of each chain within a similar parameter space

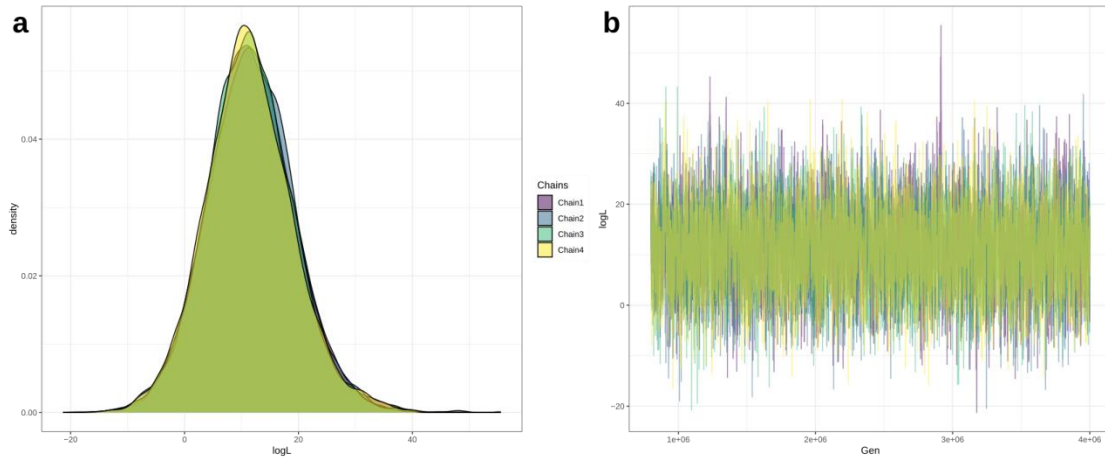


Fig. S3 Convergence assessment of the relationship between felid prey face silhouettes and color pattern. a) Overlapped density plots colored by chain. b) Traces of posterior estimates for the log-likelihood (logL) parameter. The Effective Sample Size (ESS) exceeded 200 for all runs: Chain 1 (801.38), Chain 2 (1261.37), Chain 3 (1015.71), and Chain 4 (1093.33). Different colors represent distinct chains. Note the convergence of each chain within a similar parameter space

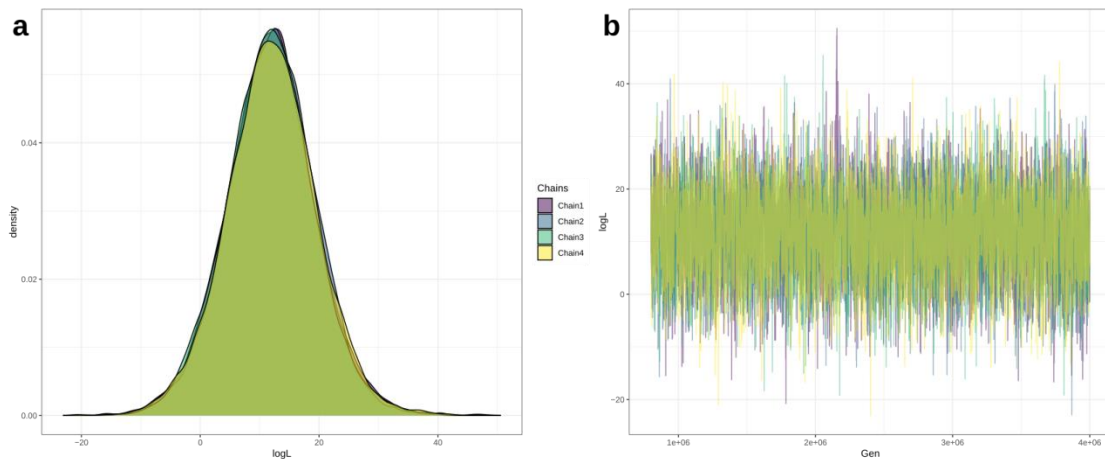


Fig. S4 Convergence assessment of the relationship between felid prey face silhouettes and habitat. a) Overlapped density plots colored by chain. b) Traces of posterior estimates for the log-likelihood (logL) parameter. The Effective Sample Size (ESS) exceeded 200 for all runs: Chain 1 (1176.41), Chain 2 (1302.22), Chain 3 (1297.49), and Chain 4 (1169.30). Different colors represent distinct chains. Note the convergence of each chain within a similar parameter space

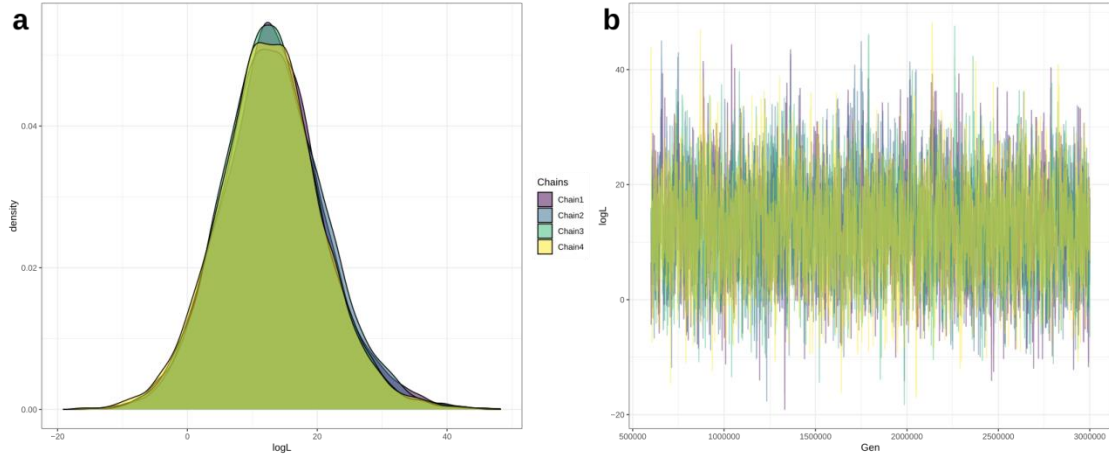


Fig. S5 Convergence assessment of the relationship between felid prey face silhouettes and activity time. a) Overlapped density plots colored by chain. b) Traces of posterior estimates for the log-likelihood (logL) parameter. The Effective Sample Size (ESS) exceeded 200 for all runs: Chain 1 (824.14), Chain 2 (551.07), Chain 3 (708.57), and Chain 4 (738.54). Different colors represent distinct chains. Note the convergence of each chain within a similar parameter space

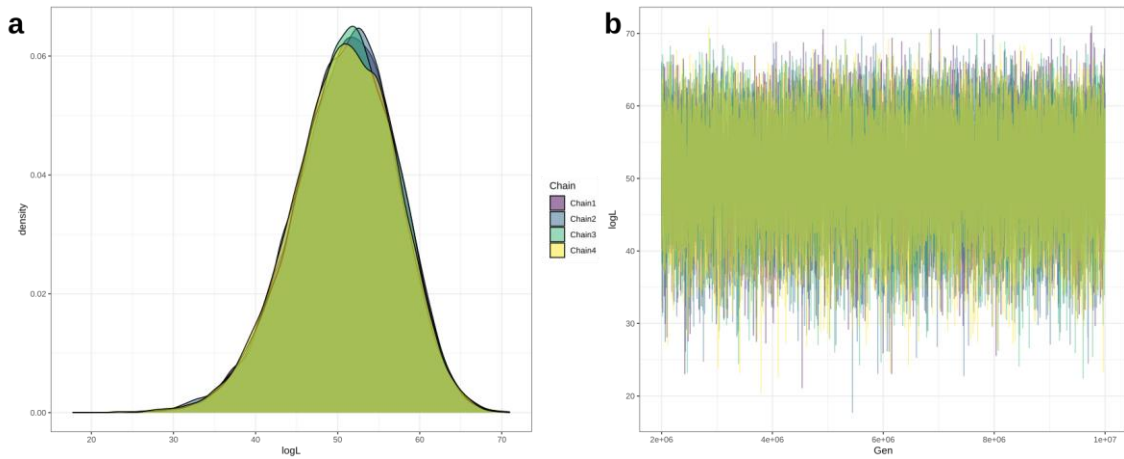


Fig. S6 Chain convergence assessment of the ancestral state reconstruction for prey silhouettes on felid faces. a) Overlapped density plots colored by chain. b) Traces of posterior estimates for the log-likelihood (logL) parameter. The Effective Sample Size (ESS) exceeded 200 for all runs: Chain 1 (4836.93), Chain 2 (5054.75), Chain 3 (4861.13), and Chain 4 (4455.81). Different colors represent distinct chains. Note the convergence of each chain within a similar parameter space