README file accompanying data for Probst et al., “Effects of climate on bill morphology within and across *Toxostoma* thrashers”

Descriptions for each online appendix provided in caption at top of sheet.

Online\_Appendix\_Nov\_18\_2021

**Caption:** Appendix 1. Museum and catalog information for all specimens used in analyses, along with their bill measurements (from Scientific Image Analysis) and wing length measurements (from digital calipers), and WorldClim climate data used in analyses. Individuals with broken bills may have blank boxes in some bill measurements, and specimens from prior to 1902 will have NAs in climate variables. These individuals were removed for some analyses and explain discrepencies between total number of specimens shown here, and sample sizes listed in Table 1.

Species: Species common name

Museum: The museum where the specimen is housed

Catalog number: The museum catalog number of the specimen

Sex: Male, female, or unknown

Collection year: The year in which the specimen was collected

Latitude: Latitude at which the specimen was collected. If this was not provided from museum data, latitude was calculated using GeoLocate and locality information.

Longitude: Longitude at which the specimen was collected. If this was not provided from museum data, longitude was calculated using GeoLocate and locality information.

Bill length (cm): Length from the most proximal unfeathered portion of bill to the distal tip of bill, along the culmen.

Bill width (cm): Width across the most proximal unfeathered portion of the bill.

Upper mandible depth (cm): Depth of the upper mandible, measured at the most proximal unfeathered portion of the bill.

Bill surface area (cm2): Calculated using the upper mandibular depth. See equation in main paper, methods.

Wing length (mm): Length of closed wing, measured using digital calipers.

Bio5: Extracted from WorldClim, maximum temperature of the warmest month

Bio6: Extracted from WorldClim, minimum temperature of the coldest month

Log bio18: Extracted from WorldClim, log-transformed, precipitation of the warmest quarter

Log aridity index: Calculated from Trabucco and Zomer et al., log-transformed, see methods.

\*\*For Bendire’s Thrasher, a vulnerable species, the coordinates on this Dryad data have been generalized. Specific coordinates can be made available to researchers on request.

Online\_Appendix\_Best\_Models

Online Appendix 2:

**Caption**: Appendix 2. AICc rankings for all models for all species. Green highlighted models are the lowest AICc values for that species and are considered the "Best Model" for analysis. Models highlighted yellow have delta AICc values less than 2.0 for that species.

Online Appendix 3:

**Caption:** Appendix 3. Best model for each species as determined by lowest AICc value. Wing length and year were used as a covariates in all models. bio5= Maximum temperature of warmest month; bio 6=Minimum temperature of coldest month; bio18= mean precipitation of warmest quarter (log transformed); ai= Aridity Index (log transformed). Bold terms were significant (p<0.05). Slopes and p-values for climate variables from Best Models are provided for each species.