**Supplementary Material for** ***Weather and nest cavity characteristics influence fecundity in mountain chickadees***.

Supplementary Table S1. Models used to identify drivers of fecundity at three scales (regional, site, and nest), for first nests of mountain chickadee, 2000–2011. R packages used: nlme (Pinheiro et al., 2021), glmmTMB (Brooks et al., 2017), lme4 (Bates et al., 2015a). Year was a random effect in models of laying date, clutch size, and brood size.

| Response variable (type) | Model type; family | Link function | Command (package) |
| --- | --- | --- | --- |
| Laying date (continuous) | general linear mixed model; Gaussian  | identity | lme (nlme) |
| Clutch size (count) | generalized linear mixed model; COM-Poisson  | log | glmmTMB (glmmTMB) |
| Nest survival (binary outcome) | generalized linear model; binomial | logistic exposure | glm (stats) |
| Brood size (count) | generalized linear mixed model; COM-Poisson  | log | glmmTMB (glmmTMB) |