| mod\_name | mod\_formula | AICc | delta | model\_df | deviance | d2 | residual\_df | lr\_chisq | chisq\_df | p\_value\_chisq | lr\_signif | best\_model\_candidate | best\_model |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| null | cbind(traps\_occupied, traps\_empty) ~ 1 | 1340.68 | 267.60 | 2 | 1336.65 | 1.00 | 394 | 0.00 | 0 | 1.00 |  | FALSE | FALSE |
| bait type | cbind(traps\_occupied, traps\_empty) ~ bait\_type | 1309.98 | 236.89 | 7 | 1295.69 | 0.03 | 389 | 40.96 | 5 | 0.00 | \*\*\* | FALSE | FALSE |
| elevation | cbind(traps\_occupied, traps\_empty) ~ poly(elevation\_mean, 2) | 1146.66 | 73.57 | 4 | 1138.55 | 0.15 | 392 | 198.10 | 2 | 0.00 | \*\*\* | FALSE | FALSE |
| region | cbind(traps\_occupied, traps\_empty) ~ regions | 1336.48 | 263.39 | 4 | 1328.38 | 0.01 | 392 | 8.28 | 2 | 0.02 | \* | FALSE | FALSE |
| season | cbind(traps\_occupied, traps\_empty) ~ seasons | 1342.34 | 269.26 | 3 | 1336.28 | 0.00 | 393 | 0.37 | 1 | 0.54 |  | FALSE | FALSE |
| bait type + elevation | cbind(traps\_occupied, traps\_empty) ~ bait\_type + poly(elevation\_mean, 2) | 1083.45 | 10.36 | 9 | 1064.98 | 0.20 | 387 | 271.67 | 7 | 0.00 | \*\*\* | FALSE | FALSE |
| bait type \* elevation | cbind(traps\_occupied, traps\_empty) ~ bait\_type + poly(elevation\_mean, 2) + bait\_type:poly(elevation\_mean, 2) | 1101.94 | 28.85 | 19 | 1061.91 | 0.21 | 377 | 274.74 | 17 | 0.00 | \*\*\* | FALSE | FALSE |
| bait type + region | cbind(traps\_occupied, traps\_empty) ~ bait\_type + regions | 1305.61 | 232.52 | 9 | 1287.14 | 0.04 | 387 | 49.51 | 7 | 0.00 | \*\*\* | FALSE | FALSE |
| bait type \* region | cbind(traps\_occupied, traps\_empty) ~ bait\_type + regions + bait\_type:regions | 1323.58 | 250.49 | 19 | 1283.55 | 0.04 | 377 | 53.10 | 17 | 0.00 | \*\*\* | FALSE | FALSE |
| bait type + season | cbind(traps\_occupied, traps\_empty) ~ bait\_type + seasons | 1311.73 | 238.64 | 8 | 1295.36 | 0.03 | 388 | 41.30 | 6 | 0.00 | \*\*\* | FALSE | FALSE |
| bait type \* season | cbind(traps\_occupied, traps\_empty) ~ bait\_type + seasons + bait\_type:seasons | 1320.68 | 247.59 | 13 | 1293.73 | 0.03 | 383 | 42.93 | 11 | 0.00 | \*\*\* | FALSE | FALSE |
| elevation + region | cbind(traps\_occupied, traps\_empty) ~ poly(elevation\_mean, 2) + regions | 1150.28 | 77.20 | 6 | 1138.07 | 0.15 | 390 | 198.58 | 4 | 0.00 | \*\*\* | FALSE | FALSE |
| elevation \* region | cbind(traps\_occupied, traps\_empty) ~ poly(elevation\_mean, 2) + regions + poly(elevation\_mean, 2):regions | 1152.01 | 78.92 | 10 | 1131.43 | 0.15 | 386 | 205.22 | 8 | 0.00 | \*\*\* | FALSE | FALSE |
| elevation + season | cbind(traps\_occupied, traps\_empty) ~ poly(elevation\_mean, 2) + seasons | 1148.71 | 75.62 | 5 | 1138.55 | 0.15 | 391 | 198.10 | 3 | 0.00 | \*\*\* | FALSE | FALSE |
| elevation \* season | cbind(traps\_occupied, traps\_empty) ~ poly(elevation\_mean, 2) + seasons + poly(elevation\_mean, 2):seasons | 1145.76 | 72.67 | 7 | 1131.47 | 0.15 | 389 | 205.18 | 5 | 0.00 | \*\*\* | FALSE | FALSE |
| region + season | cbind(traps\_occupied, traps\_empty) ~ regions + seasons | 1338.18 | 265.10 | 5 | 1328.03 | 0.01 | 391 | 8.63 | 3 | 0.04 | \* | FALSE | FALSE |
| region \* season | cbind(traps\_occupied, traps\_empty) ~ regions + seasons + regions:seasons | 1331.59 | 258.51 | 7 | 1317.30 | 0.01 | 389 | 19.35 | 5 | 0.00 | \*\* | FALSE | FALSE |
| bait type + elevation + region | cbind(traps\_occupied, traps\_empty) ~ bait\_type + poly(elevation\_mean, 2) + regions | 1087.27 | 14.18 | 11 | 1064.58 | 0.20 | 385 | 272.08 | 9 | 0.00 | \*\*\* | FALSE | FALSE |
| (bait type \* elevation) + region | cbind(traps\_occupied, traps\_empty) ~ bait\_type + poly(elevation\_mean, 2) + regions + bait\_type:poly(elevation\_mean, 2) | 1105.97 | 32.88 | 21 | 1061.50 | 0.21 | 375 | 275.15 | 19 | 0.00 | \*\*\* | FALSE | FALSE |
| (bait type + elevation) \* region | cbind(traps\_occupied, traps\_empty) ~ bait\_type + poly(elevation\_mean, 2) + regions + bait\_type:regions + poly(elevation\_mean, 2):regions | 1102.80 | 29.71 | 25 | 1049.28 | 0.22 | 371 | 287.37 | 23 | 0.00 | \*\*\* | FALSE | FALSE |
| bait type \* elevation \* region | cbind(traps\_occupied, traps\_empty) ~ bait\_type + poly(elevation\_mean, 2) + regions + bait\_type:poly(elevation\_mean, 2) + bait\_type:regions + poly(elevation\_mean, 2):regions + bait\_type:poly(elevation\_mean, 2):regions | 1148.82 | 75.74 | 55 | 1020.71 | 0.24 | 341 | 315.95 | 53 | 0.00 | \*\*\* | FALSE | FALSE |
| bait type + elevation + season | cbind(traps\_occupied, traps\_empty) ~ bait\_type + poly(elevation\_mean, 2) + seasons | 1085.55 | 12.46 | 10 | 1064.98 | 0.20 | 386 | 271.67 | 8 | 0.00 | \*\*\* | FALSE | FALSE |
| (bait type \* elevation) + season | cbind(traps\_occupied, traps\_empty) ~ bait\_type + poly(elevation\_mean, 2) + seasons + bait\_type:poly(elevation\_mean, 2) | 1104.15 | 31.07 | 20 | 1061.91 | 0.21 | 376 | 274.74 | 18 | 0.00 | \*\*\* | FALSE | FALSE |
| (bait type + elevation) \* season | cbind(traps\_occupied, traps\_empty) ~ bait\_type + poly(elevation\_mean, 2) + seasons + bait\_type:seasons + poly(elevation\_mean, 2):seasons | 1089.79 | 16.70 | 17 | 1054.17 | 0.21 | 379 | 282.49 | 15 | 0.00 | \*\*\* | FALSE | FALSE |
| bait type \* elevation \* season | cbind(traps\_occupied, traps\_empty) ~ bait\_type + poly(elevation\_mean, 2) + seasons + bait\_type:poly(elevation\_mean, 2) + bait\_type:seasons + poly(elevation\_mean, 2):seasons + bait\_type:poly(elevation\_mean, 2):seasons | 1116.64 | 43.56 | 37 | 1034.79 | 0.23 | 359 | 301.86 | 35 | 0.00 | \*\*\* | FALSE | FALSE |
| elevation + region + season | cbind(traps\_occupied, traps\_empty) ~ poly(elevation\_mean, 2) + regions + seasons | 1152.35 | 79.27 | 7 | 1138.06 | 0.15 | 389 | 198.59 | 5 | 0.00 | \*\*\* | FALSE | FALSE |
| (elevation \* region) + season | cbind(traps\_occupied, traps\_empty) ~ poly(elevation\_mean, 2) + regions + seasons + poly(elevation\_mean, 2):regions | 1154.12 | 81.03 | 11 | 1131.43 | 0.15 | 385 | 205.22 | 9 | 0.00 | \*\*\* | FALSE | FALSE |
| (elevation + region) \* season | cbind(traps\_occupied, traps\_empty) ~ poly(elevation\_mean, 2) + regions + seasons + poly(elevation\_mean, 2):seasons + regions:seasons | 1138.35 | 65.27 | 11 | 1115.66 | 0.16 | 385 | 220.99 | 9 | 0.00 | \*\*\* | FALSE | FALSE |
| elevation \* region \* season | cbind(traps\_occupied, traps\_empty) ~ poly(elevation\_mean, 2) + regions + seasons + poly(elevation\_mean, 2):regions + poly(elevation\_mean, 2):seasons + regions:seasons + poly(elevation\_mean, 2):regions:seasons | 1131.05 | 57.96 | 19 | 1091.03 | 0.18 | 377 | 245.63 | 17 | 0.00 | \*\*\* | FALSE | FALSE |
| bait type + region + season | cbind(traps\_occupied, traps\_empty) ~ bait\_type + regions + seasons | 1307.35 | 234.26 | 10 | 1286.78 | 0.04 | 386 | 49.88 | 8 | 0.00 | \*\*\* | FALSE | FALSE |
| (bait type \* region) + season | cbind(traps\_occupied, traps\_empty) ~ bait\_type + regions + seasons + bait\_type:regions | 1325.41 | 252.33 | 20 | 1283.17 | 0.04 | 376 | 53.48 | 18 | 0.00 | \*\*\* | FALSE | FALSE |
| (bait type + region) \* season | cbind(traps\_occupied, traps\_empty) ~ bait\_type + regions + seasons + bait\_type:seasons + regions:seasons | 1308.85 | 235.77 | 17 | 1273.23 | 0.05 | 379 | 63.42 | 15 | 0.00 | \*\*\* | FALSE | FALSE |
| bait type \* region \* season | cbind(traps\_occupied, traps\_empty) ~ bait\_type + regions + seasons + bait\_type:regions + bait\_type:seasons + regions:seasons + bait\_type:regions:seasons | 1334.83 | 261.75 | 37 | 1252.98 | 0.06 | 359 | 83.68 | 35 | 0.00 | \*\*\* | FALSE | FALSE |
| bait type + elevation + region + season | cbind(traps\_occupied, traps\_empty) ~ bait\_type + poly(elevation\_mean, 2) + regions + seasons | 1089.38 | 16.29 | 12 | 1064.57 | 0.20 | 384 | 272.09 | 10 | 0.00 | \*\*\* | FALSE | FALSE |
| (bait type \* elevation) + region + season | cbind(traps\_occupied, traps\_empty) ~ bait\_type + poly(elevation\_mean, 2) + regions + seasons + bait\_type:poly(elevation\_mean, 2) | 1108.20 | 35.11 | 22 | 1061.49 | 0.21 | 374 | 275.17 | 20 | 0.00 | \*\*\* | FALSE | FALSE |
| ((bait type + elevation) \* region) + season | cbind(traps\_occupied, traps\_empty) ~ bait\_type + poly(elevation\_mean, 2) + regions + seasons + bait\_type:regions + poly(elevation\_mean, 2):regions | 1105.08 | 32.00 | 26 | 1049.28 | 0.22 | 370 | 287.38 | 24 | 0.00 | \*\*\* | FALSE | FALSE |
| ((bait type + elevation) + region) \* season | cbind(traps\_occupied, traps\_empty) ~ bait\_type + poly(elevation\_mean, 2) + regions + seasons + bait\_type:seasons + poly(elevation\_mean, 2):seasons + regions:seasons | 1077.20 | 4.11 | 21 | 1032.73 | 0.23 | 375 | 303.92 | 19 | 0.00 | \*\*\* | FALSE | FALSE |
| (bait type \* elevation \* region) + season | cbind(traps\_occupied, traps\_empty) ~ bait\_type + poly(elevation\_mean, 2) + regions + seasons + bait\_type:poly(elevation\_mean, 2) + bait\_type:regions + poly(elevation\_mean, 2):regions + bait\_type:poly(elevation\_mean, 2):regions | 1151.53 | 78.45 | 56 | 1020.70 | 0.24 | 340 | 315.95 | 54 | 0.00 | \*\*\* | FALSE | FALSE |
| ((bait type \* elevation) + region) \* season | cbind(traps\_occupied, traps\_empty) ~ bait\_type + poly(elevation\_mean, 2) + regions + seasons + bait\_type:poly(elevation\_mean, 2) + bait\_type:seasons + poly(elevation\_mean, 2):seasons + regions:seasons + bait\_type:poly(elevation\_mean, 2):seasons | 1103.77 | 30.69 | 41 | 1012.04 | 0.24 | 355 | 324.61 | 39 | 0.00 | \*\*\* | FALSE | FALSE |
| (bait type + elevation) \* region \* season | cbind(traps\_occupied, traps\_empty) ~ bait\_type + poly(elevation\_mean, 2) + regions + seasons + bait\_type:regions + poly(elevation\_mean, 2):regions + bait\_type:seasons + poly(elevation\_mean, 2):seasons + regions:seasons + bait\_type:regions:seasons + poly(elevation\_mean, 2):regions:seasons | 1073.09 | 0.00 | 49 | 960.92 | 0.28 | 347 | 375.73 | 47 | 0.00 | \*\*\* | TRUE | TRUE |
| bait type \* elevation \* region \* season | cbind(traps\_occupied, traps\_empty) ~ bait\_type + poly(elevation\_mean, 2) + regions + seasons + bait\_type:poly(elevation\_mean, 2) + bait\_type:regions + poly(elevation\_mean, 2):regions + bait\_type:seasons + poly(elevation\_mean, 2):seasons + regions:seasons + bait\_type:poly(elevation\_mean, 2):regions + bait\_type:poly(elevation\_mean, 2):seasons + bait\_type:regions:seasons + poly(elevation\_mean, 2):regions:seasons + bait\_type:poly(elevation\_mean, 2):regions:seasons | 1182.88 | 109.79 | 109 | 881.03 | 0.34 | 287 | 455.62 | 107 | 0.00 | \*\*\* | FALSE | FALSE |