bootstrap_CI_1.hseason

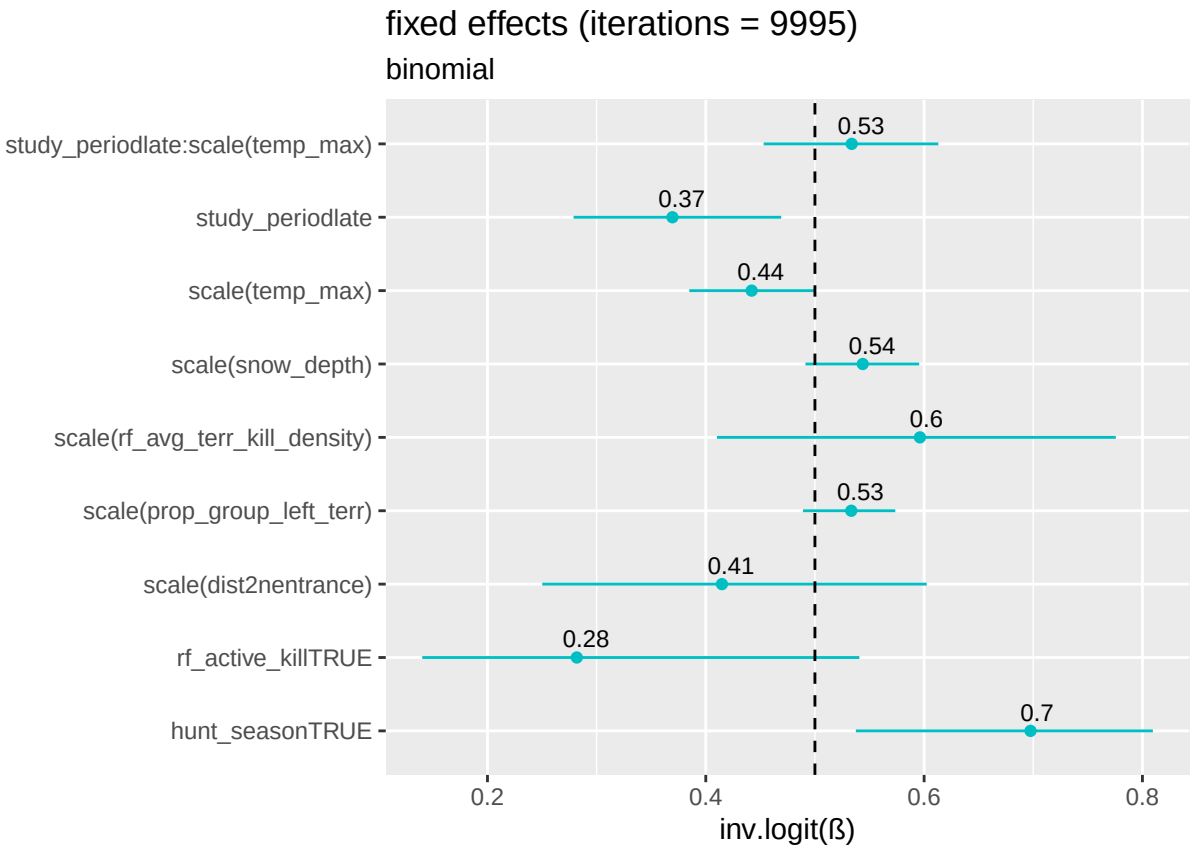
2026-01-07

```
## dataset for part 1 of conditional model
ws_model_data <- read_csv(here("data", "clean", "commute_data.csv")) %>%

  #restricting to only winter study months
  filter((paste(month, day, sep = "-") >= "11-15" &
            paste(month, day, sep = "-") <= "12-15") |
           (paste(month, day, sep = "-") >= "3-1" &
            paste(month, day, sep = "-") <= "3-30")) %>%

  #removing days when there is less than 5 GPS point
  #unless the result is Jardine
  filter(!(n_point < 5 & terr_bin == F)) %>%

  #only columns used in model
  dplyr::select(terr_bin, raven_id, rf_active_kill, final_take_bms1, final_take,
                hunt_season, rf_avg_terr_kill_density, dist2nentrance,
                study_period, temp_max, snow_depth, prop_group_left_terr) %>%

  #making sure rows are complete
  filter(complete.cases(.))


## dataset for part 2 of conditional model
hunt_model_data <- read_csv(here("data", "clean", "commute_data.csv")) %>%

  #only have days ravens decided to leave territory
  filter(terr_bin == 1) %>%

  #removing days when there is less than 5 GPS point
  #unless the result is Jardine
  filter(!(n_point < 5 & hunt_bin == F)) %>%


  #only columns used in model
  dplyr::select(hunt_bin, raven_id, final_take_bms1, final_take, hunt_season,
                dist2nentrance, study_period, temp_max, snow_depth, prop_group_visit_hunt) %>%

  #making sure rows are complete
  filter(complete.cases(.))
```

```
mod_terr_hseason <- glmer(terr_bin ~ (1|raven_id) + rf_active_kill + hunt_season + scale(rf_avg_terr_ki
                            scale(dist2nentrance) + study_period * scale(temp_max) + scale(snow_depth) +
                          data = ws_model_data,
                          family = "binomial",
```

```
                         nAGQ = 40,
                         control = cntrl)
summary(mod_terr_hseason)
```

```
## Generalized linear mixed model fit by maximum likelihood (Adaptive
##   Gauss-Hermite Quadrature, nAGQ = 40) [glmerMod]
##  Family: binomial  ( logit )
## Formula:
## terr_bin ~ (1 | raven_id) + rf_active_kill + hunt_season + scale(rf_avg_terr_kill_density) +
##     scale(dist2nentrance) + study_period * scale(temp_max) +
##     scale(snow_depth) + scale(prop_group_left_terr)
##    Data: ws_model_data
## Control: cntrl
##
##       AIC       BIC    logLik -2*log(L)  df.resid
##    1133.8    1194.4    -555.9    1111.8      1817
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -7.8293  0.1303  0.2201  0.3719  2.6237
##
## Random effects:
##  Groups   Name        Variance Std.Dev.
##  raven_id (Intercept) 2.09     1.446
## Number of obs: 1828, groups:  raven_id, 20
##
## Fixed effects:
##                                  Estimate Std. Error z value Pr(>|z|)
## (Intercept)                       2.14632    0.47915   4.479 7.48e-06 ***
## rf_active_killTRUE               -0.93531    0.36867  -2.537   0.0112 *
## hunt_seasonTRUE                   0.83540    0.35861   2.330   0.0198 *
## scale(rf_avg_terr_kill_density)   0.38958    0.39292   0.991   0.3214
## scale(dist2nentrance)            -0.34419    0.37016  -0.930   0.3524
## study_periodlate                 -0.53459    0.20840  -2.565   0.0103 *
## scale(temp_max)                  -0.23303    0.11688  -1.994   0.0462 *
## scale(snow_depth)                 0.17562    0.10575   1.661   0.0968 .
## scale(prop_group_left_terr)       0.13329    0.08569   1.555   0.1198
## study_periodlate:scale(temp_max)  0.13496    0.16540   0.816   0.4145
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr) r__TRU h_TRUE s(____ scl(2) stdy_p scl(t_) scl(s_) s(___)
## rf_ctv_TRUE  0.008
## hnt_ssnTRUE -0.585 -0.015
## scl(rf____)  0.150 -0.011 -0.021
## scl(dst2nn)  0.089  0.025 -0.052  0.088
## study_prdlt -0.083 -0.086 -0.260  0.020  0.026
## scl(tmp_mx)  0.139 -0.028 -0.217 -0.005  0.019 -0.009
## scl(snw_dp)  0.044  0.002  0.127  0.001  0.008 -0.541  0.150
## scl(prp___)  0.001  0.013 -0.073  0.027  0.017  0.274  0.028  -0.206
## stdy_pr:(_) -0.055  0.067  0.116  0.009 -0.004 -0.157 -0.661   0.093   0.021
```


fixed effects (iterations = 9995)
binomial
study_periodlate:scale(temp_max)
study_periodlate
scale(temp_max)
scale(snow_depth)
scale(rf_avg_terr_kill_density)
scale(prop_group_left_terr)
scale(dist2nentrance)
rf_active_killTRUE
hunt_seasonTRUE
0.53
0.37
0.44
0.54
0.6
0.53
0.41
0.28
0.7
0.2
0.4
0.6
0.8
inv.logit(ß)