Supplementary Information

Life stage, sex, and behavior shape habitat selection and influence conservation strategies for a threatened fossorial mammal

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Table S1: Information on 23 individuals of *Priodontes maximus* monitored at Baía das Pedras ranch, Corumbá, Brazil, from October 2011 until January 2018. Here we present information on: Individual identity (Id); Sex - male (M), female (F); Age class (Age) - adult (A), subadult (S); Body mass (BM; kg); Total monitoring time span (TMT; days); Total number of locations obtained during activity and rest (Total NL); Number of locations obtained only during activity, through GPS telemetry (Act. NL); and Number of locations obtained only during rest, through VHF telemetry (Rest NL).

ID	Sex	Age	BM	TMT	Total NL	Act. NL	Rest NL
TC04	F	A	30	1862	1143	914	229
TC08	F	A	34	1834	595	477	118
TC09	M	A	31.4	65	236	211	25
TC10	M	S	28	34	208	197	11
TC11	F	A	29	1470	380	320	60
TC12	M	A	35	1011	539	484	55
TC13	M	S	30.4	1178	723	682	41
TC14	M	A	36.9	161	299	284	15
TC15	F	A	32	686	1402	1328	74
TC16	F	S	18	487	436	350	86
TC17	M	S	20.6	232	182	150	32
TC18	F	A	31.4	320	265	238	27
TC19	F	S	25	333	263	225	38
TC20	M	S	27.2	762	1001	931	70
TC21	F	S	28.3	484	318	263	55
TC22	F	S	27.2	377	969	914	55
TC23	M	A	34.4	368	341	313	28
TC24	F	A	28.6	269	952	914	38
TC25	M	A	36.6	365	1028	1002	26
TC26	F	A	32	589	490	449	41
TC27	F	A	36	143	83	66	17
TC28	F	A	33	94	417	406	11
TC29	M	A	36.5	22	69	62	7

Table S2: Model coefficients for the best-ranked resource selection function (RSF) model fitted to characterize resource selection by the giant armadillos *Priodontes maximus* during rest. The model accounts for the effects of vegetation cover type ('Habitat'), individual body mass ('Mass') and individual sex ('Sex'). Here we present values of model coefficients ('coef'); exponential values of model coefficients ('exp(coef)'), standard error ('se(coef)'), z score and lower ('lower .95') and upper ('upper .95') limits of the 95% confidence interval.

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Call:
coxph(formula = Surv(rep(1, 2318L), pres) ~ habitat + habitat:sex +
    habitat:mass + strata(strata), data = use.disp, method = "exact")

  n= 2304, number of events= 1152
   (14 observations deleted due to missingness)

                              coef exp(coef) se(coef)      z Pr(>|z|)
habitatFloodable            0.83618   2.30753  0.85968  0.973 0.330720
habitatForest               2.58317  13.23907  0.68910  3.749 0.000178 ***
habitatOpen Savanna        -1.82039   0.16196  1.26778 -1.436 0.151033
habitatClosed Savanna:sexM -0.91668   0.39985  0.37704 -2.431 0.015046 *
habitatFloodable:sexM       0.02202   1.02226  0.43288  0.051 0.959430
habitatForest:sexM         -0.88851   0.41127  0.37931 -2.342 0.019159 *
habitatOpen Savanna:sexM         NA        NA  0.00000     NA       NA
habitatClosed Savanna:mass -0.01158   0.98849  0.04223 -0.274 0.783945
habitatFloodable:mass      -0.09013   0.91381  0.04610 -1.955 0.050580 .
habitatForest:mass         -0.08163   0.92161  0.04230 -1.930 0.053625 .
habitatOpen Savanna:mass         NA        NA  0.00000     NA       NA
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

                           exp(coef) exp(-coef) lower .95 upper .95
habitatFloodable              2.3075    0.43336    0.4279   12.4424
habitatForest                13.2391    0.07553    3.4300   51.0998
habitatOpen Savanna           0.1620    6.17428    0.0135    1.9433
habitatClosed Savanna:sexM    0.3998    2.50096    0.1910    0.8372
habitatFloodable:sexM         1.0223    0.97822    0.4376    2.3880
habitatForest:sexM            0.4113    2.43151    0.1955    0.8650
habitatOpen Savanna:sexM          NA         NA        NA        NA
habitatClosed Savanna:mass    0.9885    1.01165    0.9100    1.0738
habitatFloodable:mass         0.9138    1.09432    0.8349    1.0002
habitatForest:mass            0.9216    1.08506    0.8483    1.0013
habitatOpen Savanna:mass          NA         NA        NA        NA

Concordance= 0.689  (se = 0.013 )
Likelihood ratio test= 248.5  on 9 df,   p=<2e-16
Wald test            = 210.3  on 9 df,   p=<2e-16
Score (logrank) test = 236.3  on 9 df,   p=<2e-16
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Table S3: Model coefficients for the best-ranked step selection function (SSF) model fitted to characterize resource selection by the giant armadillos *Priodontes maximus* during activity. The model accounts for the effects of vegetation cover type ('Habitat'), individual body mass ('Mass') and individual sex ('Sex'). Here we present values of model coefficients ('coef'); exponential values of model coefficients ('exp(coef)'), standard error ('se(coef)'), z score and lower ('lower .95') and upper ('upper .95') limits of the 95% confidence interval.

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Call:
coxph(formula = Surv(rep(1, 335400L), pres) ~ habitat + habitat:sex +
    habitat:peso + strata(strata), data = data.rep, method = "exact")

  n= 335400, number of events= 11180

                              coef exp(coef)  se(coef)      z Pr(>|z|)
habitatFloodable           -0.663171  0.515215  0.237775 -2.789  0.00529 **
habitatForest               0.270827  1.311048  0.195607  1.385  0.16619
habitatOpen Savanna        -0.285575  0.751582  0.288465 -0.990  0.32218
habitatClosed Savanna:sexM  0.181187  1.198639  0.072432  2.501  0.01237 *
habitatFloodable:sexM       0.600583  1.823182  0.084325  7.122 1.06e-12 ***
habitatForest:sexM          0.241776  1.273509  0.078213  3.091  0.00199 **
habitatOpen Savanna:sexM          NA        NA  0.000000     NA       NA
habitatClosed Savanna:peso -0.007584  0.992445  0.009597 -0.790  0.42940
habitatFloodable:peso      -0.003915  0.996093  0.010504 -0.373  0.70937
habitatForest:peso         -0.021388  0.978839  0.010050 -2.128  0.03332 *
habitatOpen Savanna:peso          NA        NA  0.000000     NA       NA
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

                           exp(coef) exp(-coef) lower .95 upper .95
habitatFloodable              0.5152     1.9409    0.3233    0.8211
habitatForest                 1.3110     0.7627    0.8935    1.9236
habitatOpen Savanna           0.7516     1.3305    0.4270    1.3229
habitatClosed Savanna:sexM    1.1986     0.8343    1.0400    1.3815
habitatFloodable:sexM         1.8232     0.5485    1.5454    2.1508
habitatForest:sexM            1.2735     0.7852    1.0925    1.4845
habitatOpen Savanna:sexM          NA         NA        NA        NA
habitatClosed Savanna:peso    0.9924     1.0076    0.9740    1.0113
habitatFloodable:peso         0.9961     1.0039    0.9758    1.0168
habitatForest:peso            0.9788     1.0216    0.9597    0.9983
habitatOpen Savanna:peso          NA         NA        NA        NA

Concordance= 0.533  (se = 0.002 )
Likelihood ratio test= 222  on 9 df,   p=<2e-16
Wald test            = 208.8  on 9 df,   p=<2e-16
Score (logrank) test = 211.4  on 9 df,   p=<2e-16
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