IpmKernels

P_yr_pl P_yr_pl[size_2, size_1] = s_yr_pl[size_1] + g_yr_pl[size_2, size_1]

VitalRateExpr

s_yr_pl(size_1) = 1 / (1+exp(-(surv_int_yr_pl + surv_slope * size_1))) P_yr_pl; F_yr_pl

g_yr_pl(size_2, size_1) = Norm(g_mean_yr_pl, g_sd_yr_pl)

g_mean_yr_pl(size_1) = g_int_yr_pl + g_slope * size_1

g_sd_yr_pl = g_sd_yr_pl

EnvironmentVariables

Year	size_yr	2006:2007
Plot	size_pl	c(“A”, “B”, C”)

ParameterValues

surv_int_2006_A	0.026
surv_int_2006_B	0.079
surv_slope	2.412
Etc.	
g_int_2006_A	0.5
g_int_2007_A	2
g_sd_2006_A	2.5
g_sd_2007_A	1.7
Etc.	

IpmKernels

P_yr_pl P_yr_pl[size_2, size_1] = s_yr_pl[size_1] + g_yr_pl[size_2, size_1]

VitalRateExpr

s_yr_pl(size_1) = 1 / (1+exp(-(surv_int_yr_pl + surv_slope * size_1))) P_yr_pl; F_yr_pl

g_yr_pl(size_2, size_1) = Norm(g_mean_yr_pl, g_sd_yr_pl)

g_mean_yr_pl(size_1) = g_int_yr_pl + g_slope * size_1

g_sd_yr_pl = g_sd_yr_pl

EnvironmentVariables

Year size_yr 2006:2007

Plot size_pl c("A", "B", C")

These get expanded and substituted into each expression

ParameterValues

surv_int_2006_A	0.026
surv_int_2006_B	0.079
surv_slope	2.412
Etc.	
g_int_2006_A	0.5
g_int_2007_A	2
g_sd_2006_A	2.5
g_sd_2007_A	1.7
Etc.	

IpmKernels

P_2006_A	P_2006_A[size_2, size_1] = s_2006_A[size_1] + g_2006_A[size_2, size_1]
P_2006_B	P_2006_B[size_2, size_1] = s_2006_B[size_1] + g_2006_B[size_2, size_1]
P_2006_A	P_2006_A[size_2, size_1] = s_2006_A[size_1] + g_2006_A[size_2, size_1]
P_2006_B	P_2006_B[size_2, size_1] = s_2006_B[size_1] + g_2006_B[size_2, size_1]

VitalRateExpr

s_2006_A(size_1) = 1 / (1+exp(-(surv_int_2006_A + surv_slope * size_1)))	P_2006_A; F_2006_A
s_2006_B(size_1) = 1 / (1+exp(-(surv_int_2006_B + surv_slope * size_1)))	P_2006_B; F_2006_B
g_2006_A(size_2, size_1) = Norm(g_mean_2006_A, g_sd_2006_A)	P_2006_A
g_2006_B(size_2, size_1) = Norm(g_mean_2006_B, g_sd_2006_B)	P_2006_B
g_mean_2006_A(size_1) = g_int_2006_A + g_slope * size_1	P_2006_A
g_mean_2006_B = g_int_2006_B + g_slope * size_1	P_2006_B
Etc.	

EnvironmentVariables

Year	size_yr	2006:2007
Plot	size_pl	c(“A”, “B”, C”)

These get expanded and substituted into each expression, creating as many expressions as there are combinations of hierarchical effects! This is done when generating the models, so Padriños and Madriñas do not need to worry about doing this by hand

ParameterValues

surv_int_2006_A	0.026
surv_int_2006_B	0.079
surv_slope	2.412
Etc.	
g_int_2006_A	0.5
g_int_2007_A	2
g_sd_2006_A	2.5
g_sd_2007_A	1.7
Etc.	