Ocupación, bajo el modelo estático (MacKenzie et al. 2002) para para las especies de mamíferos en el Parque Nacional Machalilla

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Abril, 2015

Contents

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1 Duración del muestreo

Las trampas cámara permanecieron activas desde final de septiembre 204 hasta comienzos de marzo 2015.

```
## 
## Attaching package: 'dplyr'
## 
## The following objects are masked from 'package:lubridate':
## 
##     intersect, setdiff, union
## 
## The following object is masked from 'package:stats':
## 
##     filter
## 
## The following objects are masked from 'package:base':
## 
##     intersect, setdiff, setequal, union
## 
## Loading required package: sp
## Checking rgeos availability: TRUE
## rgdal: version: 0.9-1, (SVN revision 518)
## Geospatial Data Abstraction Library extensions to R successfully loaded
## Loaded GDAL runtime: GDAL 1.11.1, released 2014/09/24
## Path to GDAL shared files: C:/Users/Diego/Documents/R/win-library/3.1/rgdal/gdal
## GDAL does not use iconv for recoding strings.
## Loaded PROJ.4 runtime: Rel. 4.8.0, 6 March 2012, [PJ_VERSION: 480]
## Path to PROJ.4 shared files: C:/Users/Diego/Documents/R/win-library/3.1/rgdal/proj
## Loading required package: reshape2
## Loading required package: plyr
## ------------------------------------------------------------------------
## You have loaded plyr after dplyr - this is likely to cause problems.
## If you need functions from both plyr and dplyr, please load plyr first, then dplyr:
## library(plyr); library(dplyr)
## ------------------------------------------------------------------------
## 
## Attaching package: 'plyr'
## 
## The following objects are masked from 'package:dplyr':
## 
##     arrange, count, desc, failwith, id, mutate, rename, summarise,
##     summarize
## 
## The following object is masked from 'package:lubridate':
## 
##     here
## 
## Loading required package: ggplot2
```
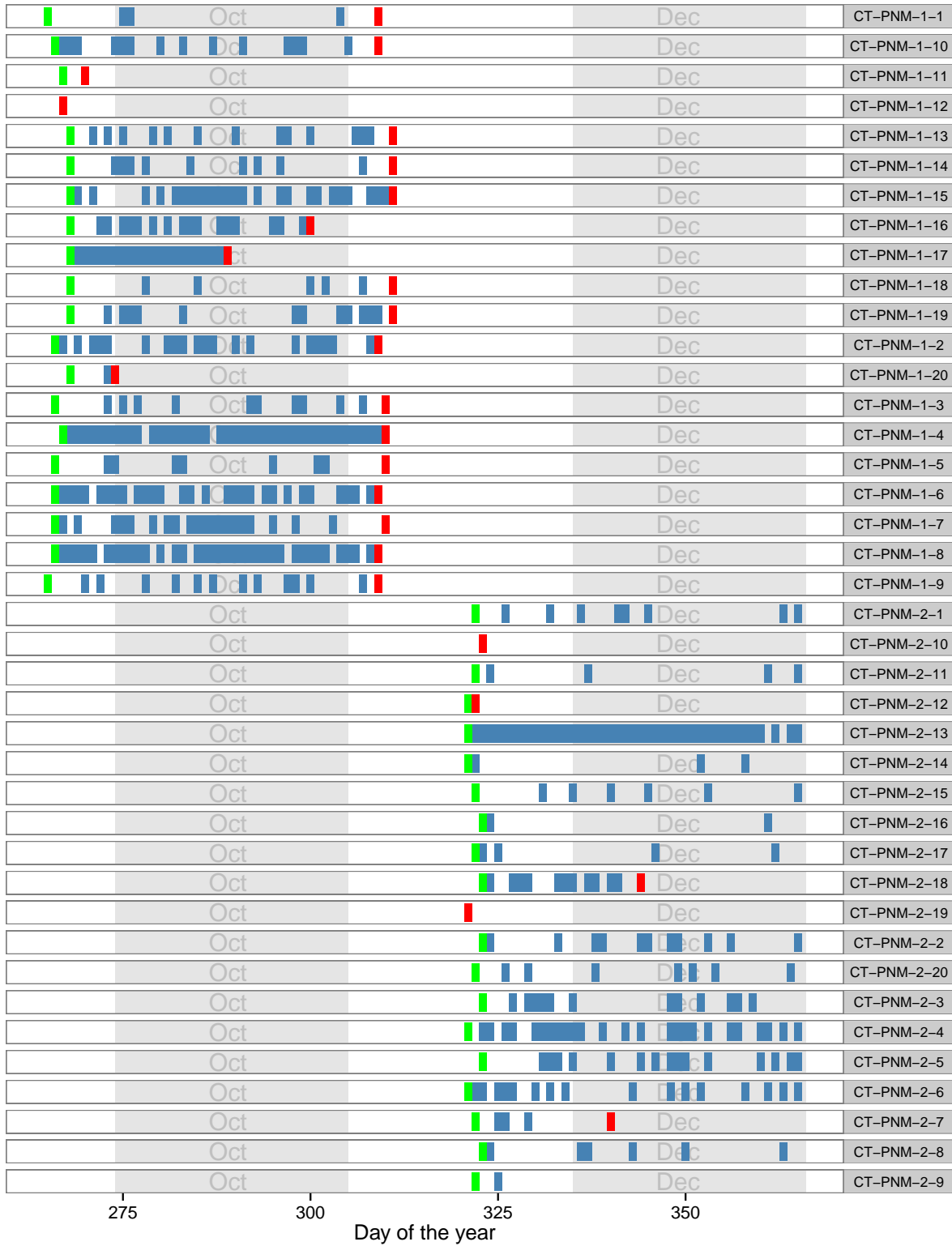
```
## Loading required package: reshape
## Loading required package: zoo
##
## Attaching package: 'zoo'
##
## The following objects are masked from 'package:base':
##
##     as.Date, as.Date.numeric
##
## Loading required package: ggplot2
## Loading required package: chron
## Loading required package: grid
## Loading required package: xtable
## Loading required package: Hmisc
## Loading required package: lattice
## Loading required package: survival
## Loading required package: splines
## Loading required package: Formula
##
## Attaching package: 'Hmisc'
##
## The following objects are masked from 'package:xtable':
##
##     label, label<-
##
## The following objects are masked from 'package:base':
##
##     format.pval, round.POSIXt, trunc.POSIXt, units
##
## Loading required package: reshape2
##
## Attaching package: 'reshape2'
##
## The following objects are masked from 'package:reshape':
##
##     colsplit, melt, recast
##
## Loading required package: plyr
##
## Attaching package: 'plyr'
##
## The following objects are masked from 'package:Hmisc':
##
##     is.discrete, summarize
##
## The following objects are masked from 'package:reshape':
##
##     rename, round_any
##
## Loading required package: scales
## Loading required package: lubridate
##
## Attaching package: 'lubridate'
##
```

```
## The following object is masked from 'package:plyr':
##
##      here
##
## The following objects are masked from 'package:chron':
##
##      days, hours, minutes, seconds, years
##
## The following object is masked from 'package:reshape':
##
##      stamp
```

Time−Series Photo Calendar 2014

Day of the year

Record Type ■ End ■ Photo ■ Start

5

Time−Series Photo Calendar 2015

CT−PNM−2−1
CT−PNM−2−11
CT−PNM−2−13
CT−PNM−2−14
CT−PNM−2−15
CT−PNM−2−16
CT−PNM−2−17
CT−PNM−2−2
CT−PNM−2−20
CT−PNM−2−3
CT−PNM−2−4
CT−PNM−2−5
CT−PNM−2−6
CT−PNM−2−8
CT−PNM−2−9
CT−PNM−3−01
CT−PNM−3−02
CT−PNM−3−03
CT−PNM−3−04
CT−PNM−3−05
CT−PNM−3−06
CT−PNM−3−07
CT−PNM−3−08
CT−PNM−3−09
CT−PNM−3−10
CT−PNM−3−11
CT−PNM−3−13
CT−PNM−3−14
CT−PNM−3−15
CT−PNM−3−16
CT−PNM−3−17
CT−PNM−3−18
CT−PNM−3−19
CT−PNM−3−20

Day of the year

Record Type   End   Photo   Start

2 Especies registradas

Las especies registradas en el Parque Nacional Machalilla fueron en total 36, entre aves y mamiferos

% latex table generated in R 3.1.0 by xtable 1.7-4 package % Fri May 22 12:45:55 2015

	Numero_de_fotos	especie
	701.00	
Canis lupus	23.00	Canis lupus
Capra aegagrus	315.00	Capra aegagrus
Leptotila verreauxi	37.00	Leptotila verreauxi
Tamandua mexicana	15.00	Tamandua mexicana
Eira barbara	30.00	Eira barbara
Buteogallus urubitinga	3.00	Buteogallus urubitinga
Odocoileus virginianus	33.00	Odocoileus virginianus
Leopardus wiedii	10.00	Leopardus wiedii
Bos primigenius	68.00	Bos primigenius
Sylvilagus brasiliensis	15.00	Sylvilagus brasiliensis
Equus ferus	63.00	Equus ferus
Cuniculus paca	31.00	Cuniculus paca
Rattus rattus	3.00	Rattus rattus
Sus scrofa	19.00	Sus scrofa
Equus africanus	52.00	Equus africanus
Leopardus pardalis	5.00	Leopardus pardalis
Puma yauguaroundi	3.00	Puma yauguaroundi
Dasyprocta punctata	58.00	Dasyprocta punctata
Pecari tajacu	31.00	Pecari tajacu
Tinamus major	1.00	Tinamus major
Dasypus novemcinctus	21.00	Dasypus novemcinctus
Sciurus stramineus	45.00	Sciurus stramineus
Procyon cancrivorus	8.00	Procyon cancrivorus
Homo sapiens	25.00	Homo sapiens
Ortalis vetula	3.00	Ortalis vetula
Mazama americana	9.00	Mazama americana
Nasua narica	4.00	Nasua narica
Pipistrellus pipistrellus	1.00	Pipistrellus pipistrellus
Heliomaster longirostris	1.00	Heliomaster longirostris
Didelphis marsupialis	5.00	Didelphis marsupialis
Myotis myotis	1.00	Myotis myotis
Momotus momota	1.00	Momotus momota
Zenaida auriculata	1.00	Zenaida auriculata
Gallus gallus	1.00	Gallus gallus
Cathartes aura	1.00	Cathartes aura
Pheucticus chrysogaster	1.00	Pheucticus chrysogaster

2.1 Distribucion posterior de la riquea de especies

Riqueza de especies y acumulación, modelando la ocurrencia y la detectabilidad. Este análisis sigue el método de Dorazio et al. (2006).

```
## Loading required package: coda
## Loading required package: boot
##
```

```
## Attaching package: 'boot'
##
## The following object is masked from 'package:survival':
##
##      aml
##
## The following object is masked from 'package:lattice':
##
##      melanoma
```

```
## Posterior computed in 19.079924650987 minutes
```
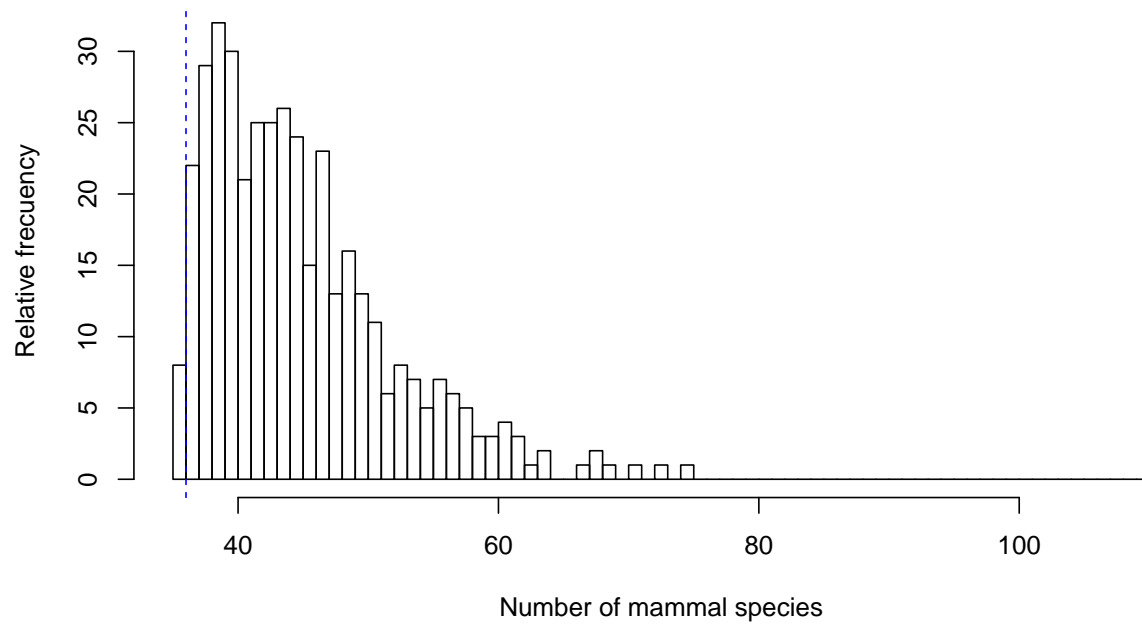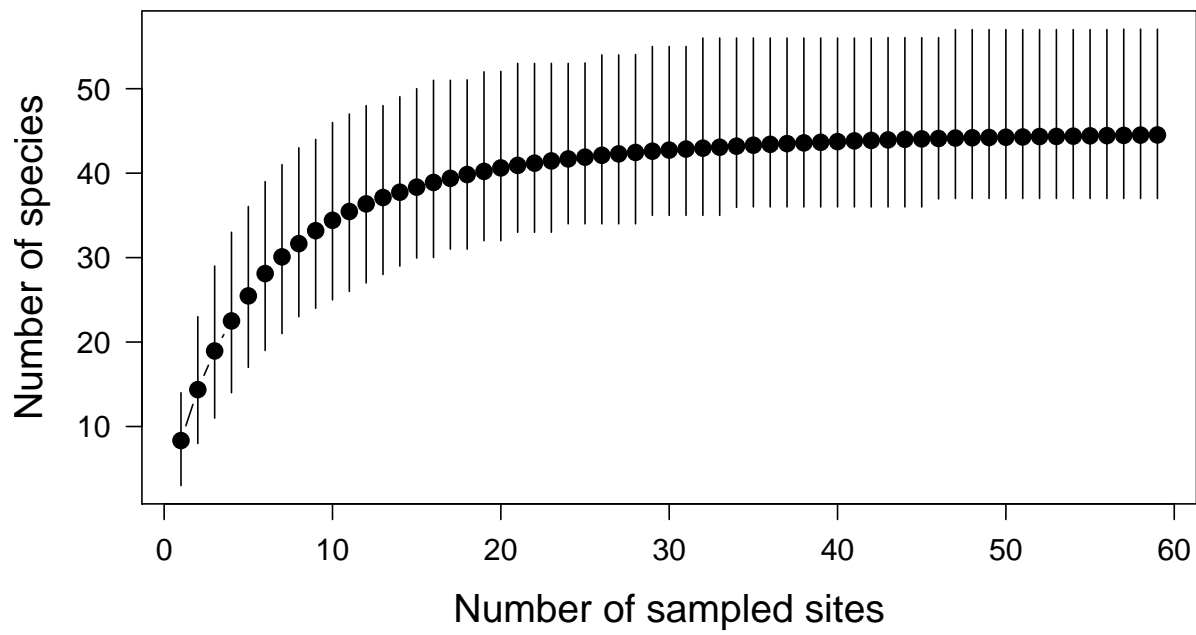
```
## [1] 45.335
```

```
## [1] 44
```

3 Covariables

Inicialmente se seleccionaron siete covariables para ajustar los modelos de ocupación. Estas cinco covariables fueron: Altitud (elev), Pendiente (slope), Distancia a la carretera pavimentada (dis rd) y distancia a la deforestación (dist def), como covariables geográficas y altura del dosel, cobertura del dosel y área basal como covariables que se midieron momento de retirar las cámaras. Estas tres últimas covariables se midieron usando la metodología del cuadrante centrado en un punto.

La Altitud se obtuvo de una imagen SRTM del repositorio de CGIAR. La pendiente se infirió a partir de la altitud. La distancia a las carreteras se obtuvo de un mapa del Ministerio del Medio Ambiente del Ecuador. El mapa de deforestacion provino de los datos del Global Forest Change.

```
##
## Attaching package: 'raster'
##
## The following objects are masked from 'package:Hmisc':
##
##      mask, zoom
##
## The following object is masked from 'package:dplyr':
##
##      select
##
##
## spatstat 1.38-1       (nickname: 'Le Hardi')
## For an introduction to spatstat, type 'beginner'
##
## Attaching package: 'spatstat'
##
## The following objects are masked from 'package:raster':
##
##      rotate, shift
##
## The following object is masked from 'package:scales':
##
##      rescale
##
## The following object is masked from 'package:Hmisc':
##
##      asNumericMatrix
##
## The following object is masked from 'package:lattice':
##
##      panel.histogram
```

Altitud

Pendiente

Distancia a las carreteras

Distancia a Deforestacion
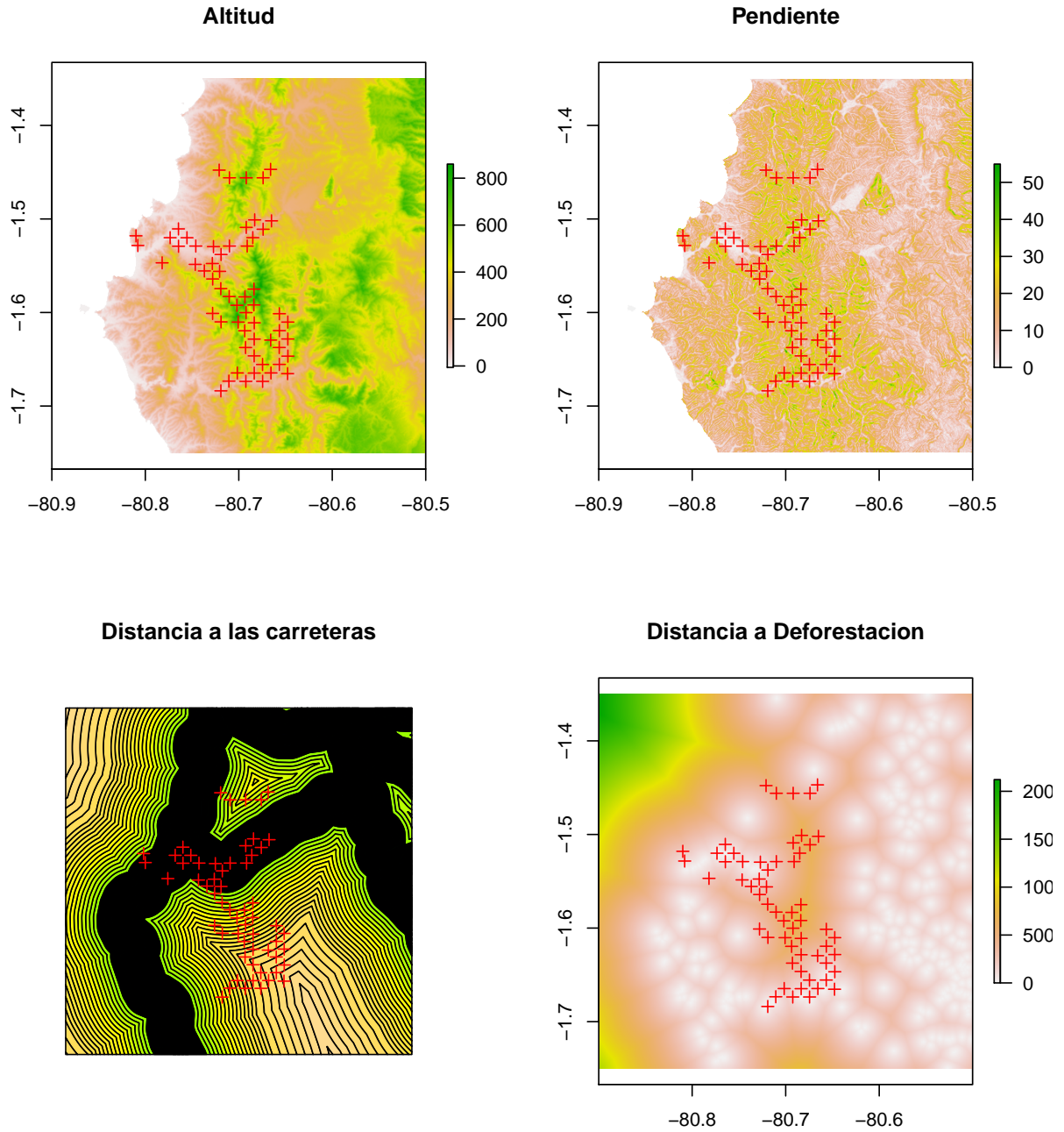
4 Algebra del modelo de ocupación

Cada especie tiene una historia de detección que se usó para modelar la ocupación. Esta se calculó teniendo en cuenta que cada sitio tiene también su propia historia de detección. La historia de detección puede ser representada como una ecuación matemática intuitiva, donde la especie objetivo fue detectada como una secuencia de unos y ceros de cada día de detección en cada cámara, con uno si se tomó una foto ese día y cero si no se tomó foto. Ese sitio (cámara) estará ocupado (ψ), con una probabilidad que se calcula de su

historia de detección de la siguiente forma para un sitio con una historia de detección 1001:

$$Pr(H_i = 1001) = \psi * p_1(1 - p_2)(1 - p_3)p_4$$

Mientras que un sitio que tuvo una historia de detección donde no se registró la especie podría ser un sitio que no está ocupado por la especie (1-ψ) o estar ocupado pero la especie nunca detectada lo cual sería:

$$Pr(H_i = 0000) = \psi * (1 - p_1)(1 - p_2)(1 - p_3)(1 - p_4) \text{ or } \psi \prod_1^4 (1 - p_j) + (1 - \psi)$$

Matemáticamente podríamos combinar todas las historias de detección en un modelo de máxima verosimilitud como:

$$L(\psi, p \mid H_1...H_{x+1}) = \prod_1^{x+1} \Pr(H_i)$$

Estos modelos pueden incorporar covariables que interactúan con la ocupación y la probabilidad de ocupación y pueden ser resueltos con la ayuda del paquete unmarked del lenguaje estadístico R.

5 Modelos de ocupación por especie

5.1 La Cabra (*Capra aegagrus*)

5.1.1 Matriz de datos colapsada a 15 dias

```
## Loading required package: Rcpp
##
## Attaching package: 'unmarked'
##
## The following objects are masked from 'package:raster':
##
##     getData, projection
##
## The following object is masked from 'package:sp':
##
##     coordinates
```
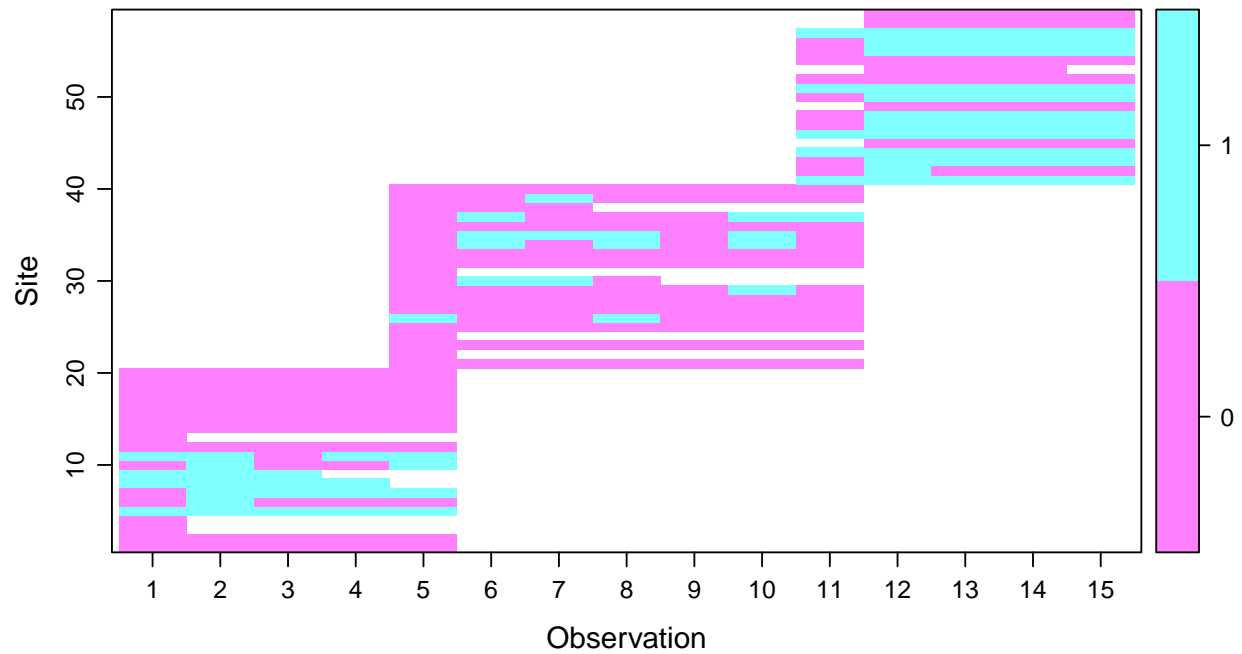
5.1.2 Seleccion de Modelos

[1] "Capra aegagrus" % latex table generated in R 3.1.0 by xtable 1.7-4 package % Wed May 20 18:52:14 2015

	Capra aegagrus models	nPars	AIC	delta	AICwt	cumltvWt
9	p(basal_a)psi(elev)	4	246.53	0.00	0.58	0.58
10	p(basal_a)psi(canopy_c)	4	247.72	1.19	0.32	0.90
2	p(.)psi(elev)	3	252.77	6.24	0.03	0.93
14	p(basal_a)psi(dist_def)	4	253.07	6.54	0.02	0.95
11	p(.)psi(canopy_c)	3	253.89	7.36	0.01	0.97
8	p(basal_a)psi(.)	3	254.35	7.82	0.01	0.98
5	p(elev)psi(elev)	4	254.69	8.15	0.01	0.99
15	p(elev)psi(canopy_c)	4	255.78	9.24	0.01	0.99
4	p(.)psi(dist_rd)	3	257.39	10.85	0.00	1.00
7	p(elev)psi(dist_rd)	4	259.12	12.59	0.00	1.00
12	p(.)psi(dist_def)	3	259.54	13.01	0.00	1.00
3	p(.)psi(slope)	3	260.52	13.99	0.00	1.00
1	p(.)psi(.)	2	260.96	14.42	0.00	1.00
13	p(elev)psi(dist_def)	4	261.39	14.85	0.00	1.00
6	p(elev)psi(slope)	4	262.30	15.77	0.00	1.00

5.2 El Cabeza de Mate (*Eira barbara*)

5.2.1 Matriz de datos colapsada a 15 dias

5.2.2 Seleccion de Modelos

[1] "Eira barbara" % latex table generated in R 3.1.0 by xtable 1.7-4 package % Wed May 20 18:52:16 2015

	__Eira barbara__ models	nPars	AIC	delta	AICwt	cumltvWt
13	p(elev)psi(dist_def)	4	149.02	0.00	0.22	0.22
12	p(.)psi(dist_def)	3	149.52	0.50	0.17	0.39
1	p(.)psi(.)	2	150.37	1.35	0.11	0.50
14	p(basal_a)psi(dist_def)	4	150.44	1.42	0.11	0.60
11	p(.)psi(canopy_c)	3	151.85	2.83	0.05	0.66
8	p(basal_a)psi(.)	3	151.98	2.97	0.05	0.71
2	p(.)psi(elev)	3	152.05	3.03	0.05	0.75
3	p(.)psi(slope)	3	152.05	3.04	0.05	0.80
5	p(elev)psi(elev)	4	152.18	3.17	0.04	0.85
4	p(.)psi(dist_rd)	3	152.24	3.23	0.04	0.89
6	p(elev)psi(slope)	4	153.40	4.38	0.02	0.91
9	p(basal_a)psi(elev)	4	153.44	4.42	0.02	0.94
15	p(elev)psi(canopy_c)	4	153.45	4.43	0.02	0.96
10	p(basal_a)psi(canopy_c)	4	153.66	4.65	0.02	0.98
7	p(elev)psi(dist_rd)	4	154.07	5.06	0.02	1.00

5.3   El tigrillo (*Leopardus wiedii*)

5.3.1   Matriz de datos colapsada a 15 dias

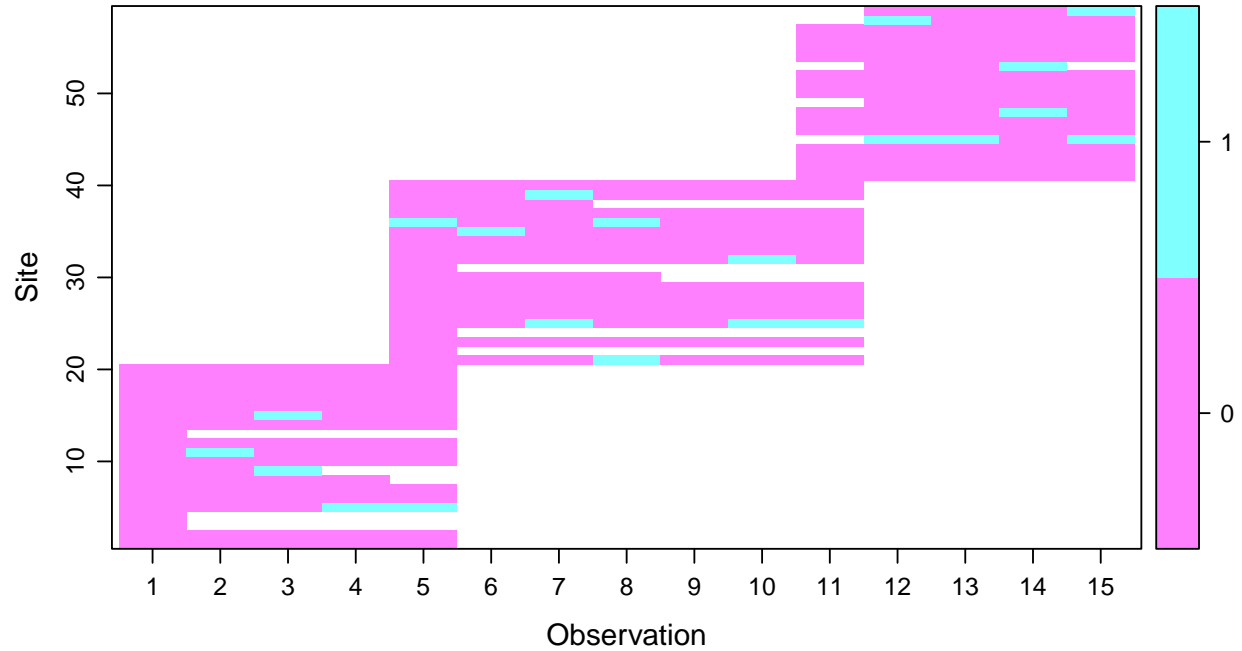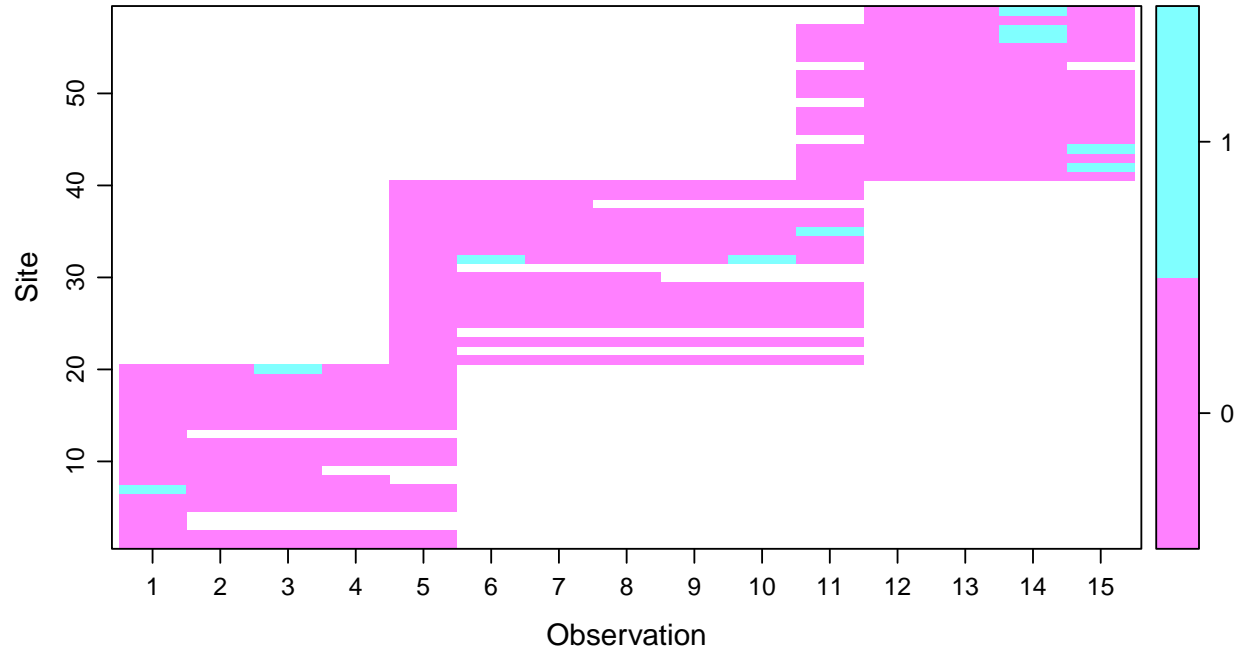### 5.3.2   Seleccion de Modelos

[1] "Leopardus wiedii" % latex table generated in R 3.1.0 by xtable 1.7-4 package % Wed May 20 18:52:19 2015

	Leopardus wiedii models	nPars	AIC	delta	AICwt	cumltvWt
3	p(.)psi(slope)	3	87.24	0.00	0.36	0.36
6	p(elev)psi(slope)	4	87.43	0.18	0.33	0.68
1	p(.)psi(.)	2	90.78	3.53	0.06	0.75
4	p(.)psi(dist_rd)	3	91.48	4.23	0.04	0.79
11	p(.)psi(canopy_c)	3	92.15	4.90	0.03	0.82
12	p(.)psi(dist_def)	3	92.30	5.05	0.03	0.85
2	p(.)psi(elev)	3	92.50	5.25	0.03	0.87
15	p(elev)psi(canopy_c)	4	92.70	5.46	0.02	0.90
8	p(basal_a)psi(.)	3	92.76	5.51	0.02	0.92
7	p(elev)psi(dist_rd)	4	92.92	5.68	0.02	0.94
13	p(elev)psi(dist_def)	4	93.82	6.58	0.01	0.95
5	p(elev)psi(elev)	4	93.88	6.63	0.01	0.97
10	p(basal_a)psi(canopy_c)	4	94.12	6.88	0.01	0.98
14	p(basal_a)psi(dist_def)	4	94.23	6.99	0.01	0.99
9	p(basal_a)psi(elev)	4	94.46	7.21	0.01	1.00

5.4   La vaca (*Bos primigenius*)

5.4.1   Matriz de datos colapsada a 15 dias
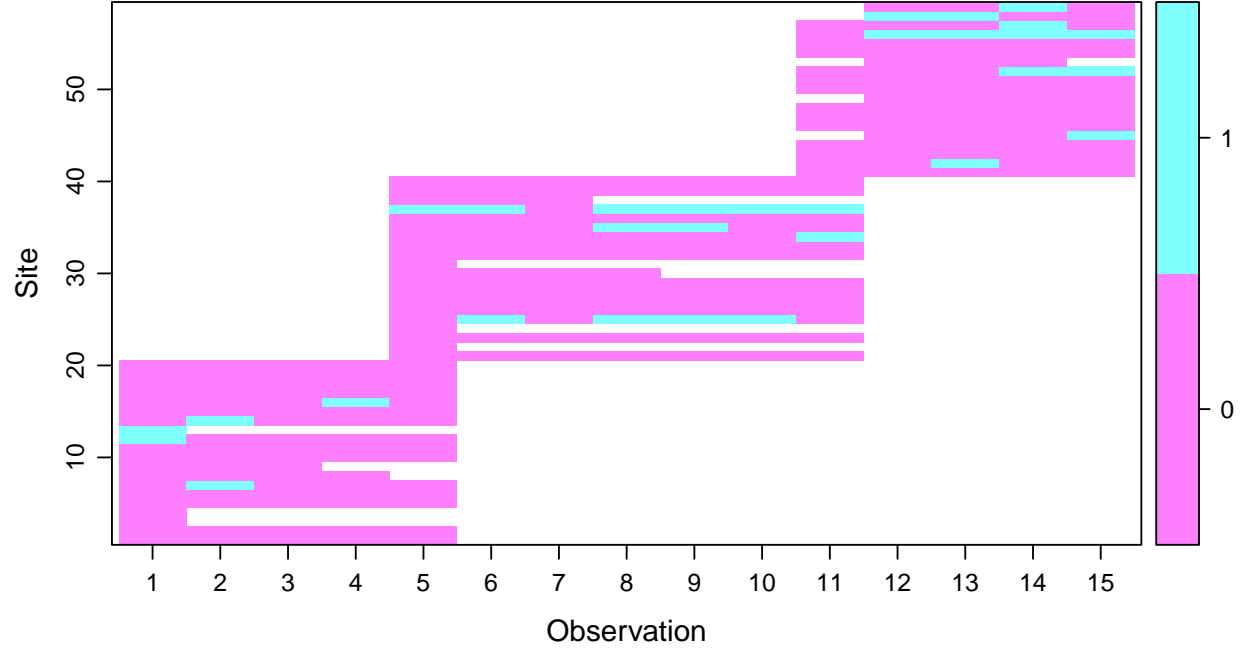
5.4.2   Seleccion de Modelos

[1] "Bos primigenius" % latex table generated in R 3.1.0 by xtable 1.7-4 package % Wed May 20 18:52:21 2015

	Bos primigenius models	nPars	AIC	delta	AICwt	cumltvWt
15	p(elev)psi(canopy_c)	4	163.12	0.00	0.64	0.64
10	p(basal_a)psi(canopy_c)	4	165.11	1.99	0.24	0.87
11	p(.)psi(canopy_c)	3	168.16	5.04	0.05	0.92
8	p(basal_a)psi(.)	3	169.85	6.73	0.02	0.95
14	p(basal_a)psi(dist_def)	4	171.15	8.03	0.01	0.96
3	p(.)psi(slope)	3	171.26	8.14	0.01	0.97
6	p(elev)psi(slope)	4	171.54	8.42	0.01	0.98
9	p(basal_a)psi(elev)	4	171.79	8.67	0.01	0.99
1	p(.)psi(.)	2	173.64	10.52	0.00	0.99
13	p(elev)psi(dist_def)	4	174.49	11.37	0.00	0.99
7	p(elev)psi(dist_rd)	4	174.53	11.42	0.00	0.99
5	p(elev)psi(elev)	4	174.62	11.50	0.00	1.00
12	p(.)psi(dist_def)	3	174.68	11.56	0.00	1.00
4	p(.)psi(dist_rd)	3	175.51	12.40	0.00	1.00
2	p(.)psi(elev)	3	175.52	12.41	0.00	1.00

5.5   El Perro domestico (*Canis lupus*)

5.5.1   Matriz de datos colapsada a 15 dias

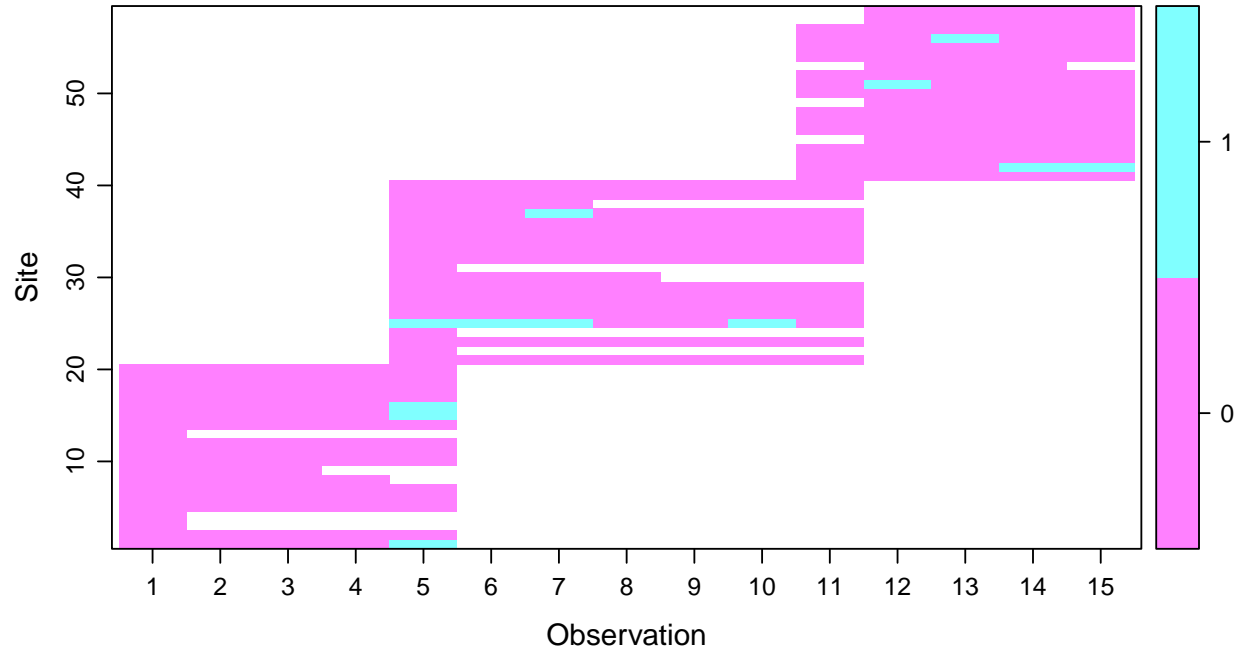### 5.5.2   Seleccion de Modelos

[1] "Canis lupus" % latex table generated in R 3.1.0 by xtable 1.7-4 package % Wed May 20 18:52:23 2015

	Canis lupus models	nPars	AIC	delta	AICwt	cumltvWt
6	p(elev)psi(slope)	4	91.82	0.00	0.51	0.51
3	p(.)psi(slope)	3	94.32	2.50	0.15	0.66
1	p(.)psi(.)	2	96.27	4.44	0.06	0.71
11	p(.)psi(canopy_c)	3	96.87	5.04	0.04	0.76
15	p(elev)psi(canopy_c)	4	97.33	5.50	0.03	0.79
13	p(elev)psi(dist_def)	4	97.51	5.68	0.03	0.82
5	p(elev)psi(elev)	4	97.62	5.80	0.03	0.85
7	p(elev)psi(dist_rd)	4	97.73	5.90	0.03	0.87
8	p(basal_a)psi(.)	3	97.90	6.08	0.02	0.90
4	p(.)psi(dist_rd)	3	98.05	6.23	0.02	0.92
12	p(.)psi(dist_def)	3	98.24	6.41	0.02	0.94
10	p(basal_a)psi(canopy_c)	4	98.25	6.42	0.02	0.96
2	p(.)psi(elev)	3	98.26	6.43	0.02	0.98
14	p(basal_a)psi(dist_def)	4	99.86	8.04	0.01	0.99
9	p(basal_a)psi(elev)	4	99.90	8.07	0.01	1.00

5.6 El Oso Hormiero (*Tamandua mexicana*)

5.6.1 Matriz de datos colapsada a 15 dias
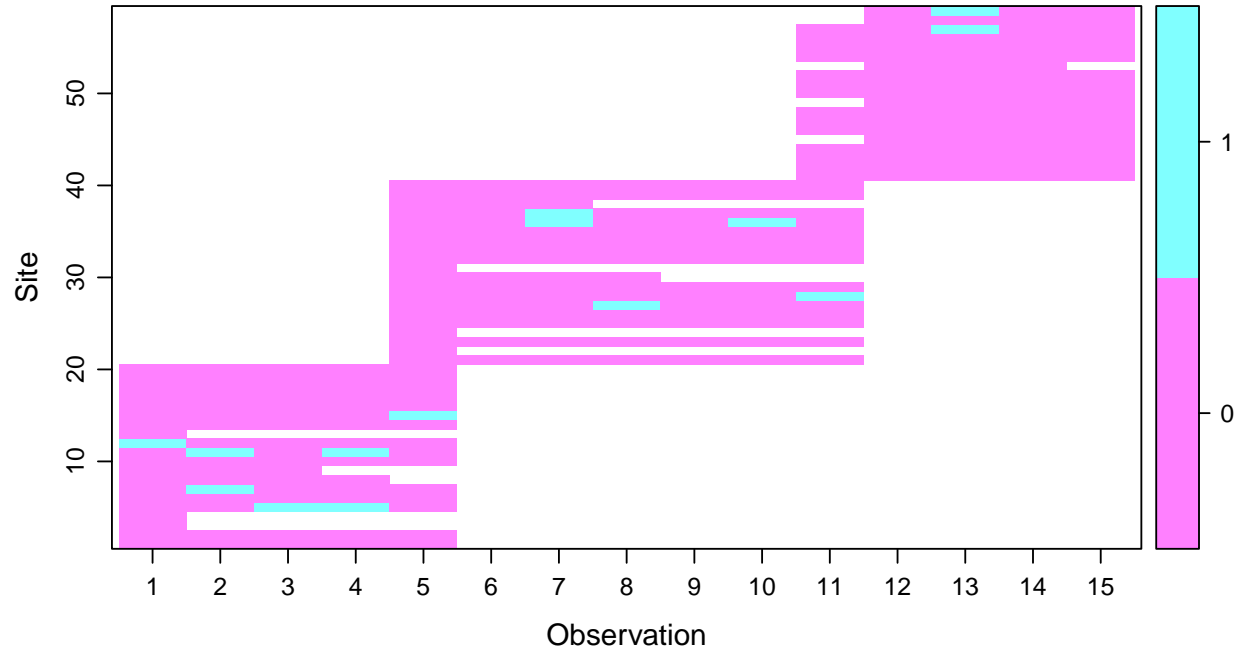
5.6.2 Seleccion de Modelos

[1] "Tamandua mexicana" % latex table generated in R 3.1.0 by xtable 1.7-4 package % Wed May 20 18:52:26 2015

	Tamandua mexicana models	nPars	AIC	delta	AICwt	cumltvWt
1	p(.)psi(.)	2	114.37	0.00	0.17	0.17
11	p(.)psi(canopy_c)	3	114.46	0.08	0.16	0.33
2	p(.)psi(elev)	3	115.76	1.39	0.08	0.41
4	p(.)psi(dist_rd)	3	115.83	1.45	0.08	0.50
12	p(.)psi(dist_def)	3	115.95	1.58	0.08	0.57
15	p(elev)psi(canopy_c)	4	116.36	1.99	0.06	0.64
3	p(.)psi(slope)	3	116.37	2.00	0.06	0.70
8	p(basal_a)psi(.)	3	116.37	2.00	0.06	0.76
10	p(basal_a)psi(canopy_c)	4	116.37	2.00	0.06	0.82
5	p(elev)psi(elev)	4	117.49	3.12	0.04	0.86
13	p(elev)psi(dist_def)	4	117.74	3.36	0.03	0.89
9	p(basal_a)psi(elev)	4	117.76	3.39	0.03	0.92
7	p(elev)psi(dist_rd)	4	117.82	3.45	0.03	0.95
14	p(basal_a)psi(dist_def)	4	117.95	3.58	0.03	0.98
6	p(elev)psi(slope)	4	118.37	3.99	0.02	1.00

5.7 El Venado (*Odocoileus virginianus*)

5.7.1 Matriz de datos colapsada a 15 dias
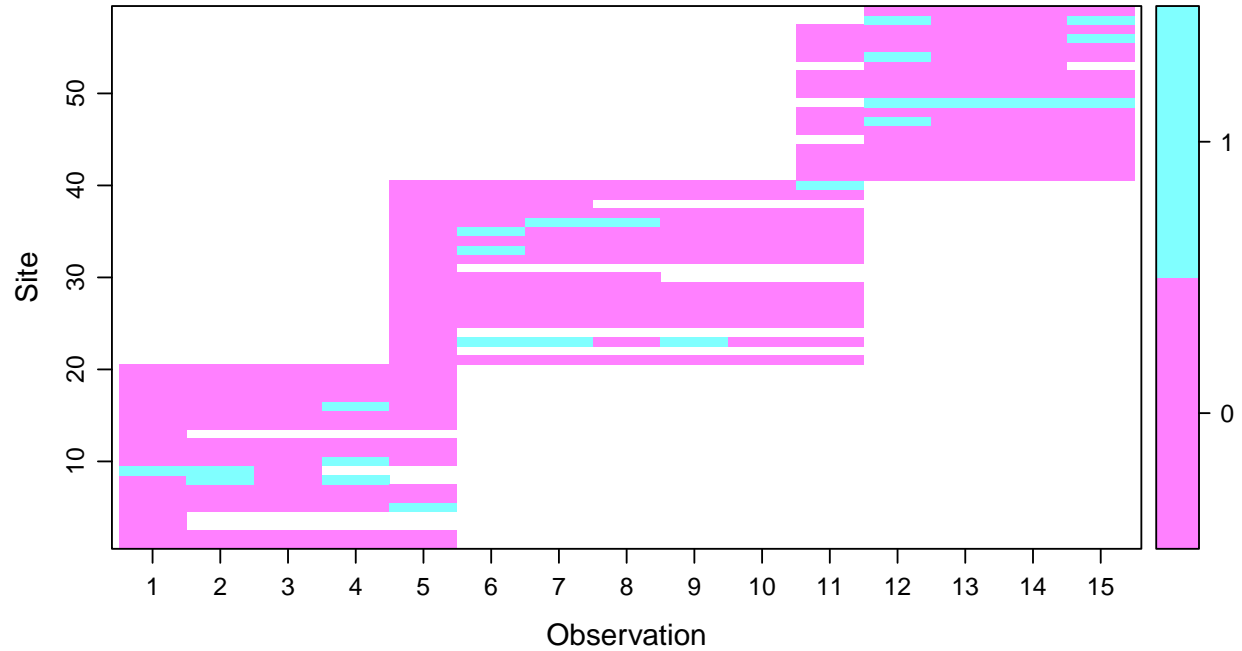
5.7.2 Seleccion de Modelos

[1] "Odocoileus virginianus" % latex table generated in R 3.1.0 by xtable 1.7-4 package % Wed May 20 18:52:28 2015

	Odocoileus virginianus models	nPars	AIC	delta	AICwt	cumltvWt
15	p(elev)psi(canopy_c)	4	154.18	0.00	0.21	0.21
9	p(basal_a)psi(elev)	4	154.90	0.72	0.14	0.35
6	p(elev)psi(slope)	4	155.39	1.22	0.11	0.46
7	p(elev)psi(dist_rd)	4	155.90	1.72	0.09	0.55
5	p(elev)psi(elev)	4	156.07	1.90	0.08	0.63
13	p(elev)psi(dist_def)	4	156.08	1.90	0.08	0.71
10	p(basal_a)psi(canopy_c)	4	156.87	2.69	0.05	0.76
2	p(.)psi(elev)	3	157.15	2.98	0.05	0.81
14	p(basal_a)psi(dist_def)	4	157.18	3.00	0.05	0.86
8	p(basal_a)psi(.)	3	157.56	3.38	0.04	0.90
11	p(.)psi(canopy_c)	3	157.58	3.41	0.04	0.93
3	p(.)psi(slope)	3	158.55	4.38	0.02	0.96
1	p(.)psi(.)	2	159.12	4.95	0.02	0.97
12	p(.)psi(dist_def)	3	159.17	4.99	0.02	0.99
4	p(.)psi(dist_rd)	3	160.39	6.21	0.01	1.00

5.8 El Conejo (*Sylvilagus brasiliensis*)
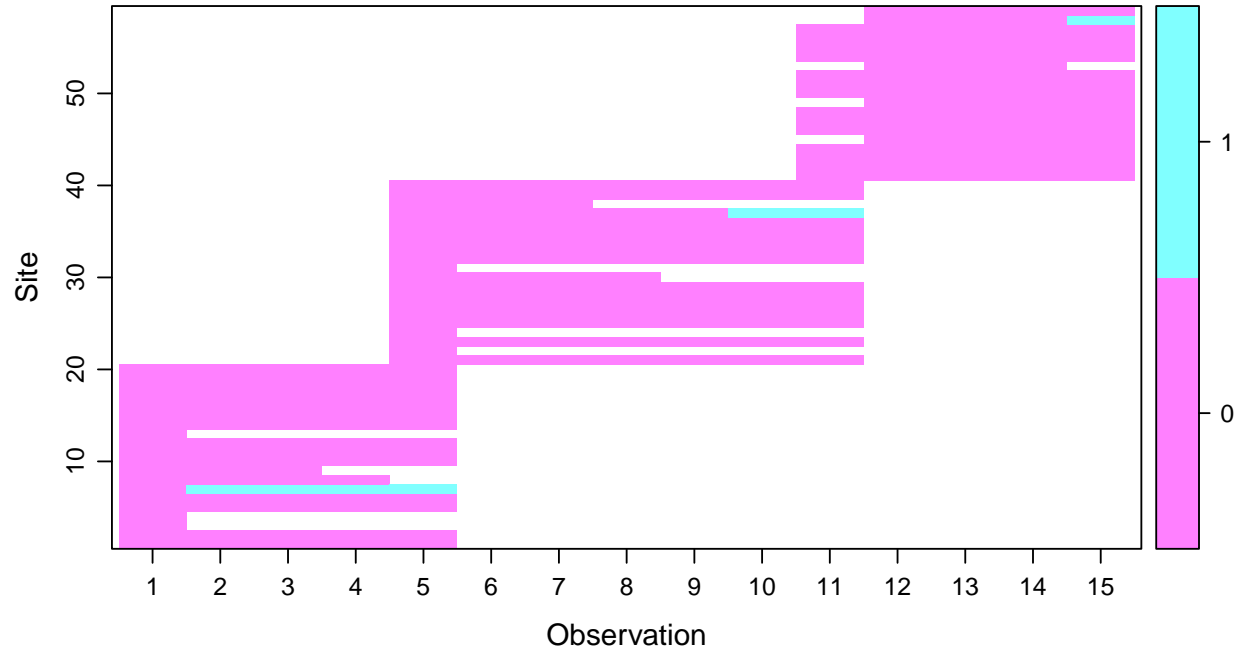
5.8.1 Matriz de datos colapsada a 15 dias

5.8.2 Seleccion de Modelos

[1] "Sylvilagus brasiliensis" % latex table generated in R 3.1.0 by xtable 1.7-4 package % Wed May 20 18:52:30 2015

	Sylvilagus brasiliensis models	nPars	AIC	delta	AICwt	cumltvWt
15	p(elev)psi(canopy_c)	4	41.34	0.00	0.30	0.30
13	p(elev)psi(dist_def)	4	42.04	0.69	0.21	0.51
6	p(elev)psi(slope)	4	42.58	1.23	0.16	0.67
7	p(elev)psi(dist_rd)	4	43.79	2.45	0.09	0.76
5	p(elev)psi(elev)	4	43.80	2.46	0.09	0.85
12	p(.)psi(dist_def)	3	44.56	3.21	0.06	0.91
3	p(.)psi(slope)	3	46.27	4.93	0.03	0.94
14	p(basal_a)psi(dist_def)	4	46.46	5.12	0.02	0.96
2	p(.)psi(elev)	3	47.17	5.83	0.02	0.98
1	p(.)psi(.)	2	48.89	7.54	0.01	0.98
9	p(basal_a)psi(elev)	4	49.04	7.70	0.01	0.99
11	p(.)psi(canopy_c)	3	50.30	8.96	0.00	0.99
4	p(.)psi(dist_rd)	3	50.46	9.12	0.00	1.00
8	p(basal_a)psi(.)	3	50.76	9.41	0.00	1.00
10	p(basal_a)psi(canopy_c)	4	52.20	10.85	0.00	1.00

5.9   El Caballo (*Equus ferus*)

5.9.1   Matriz de datos colapsada a 15 dias
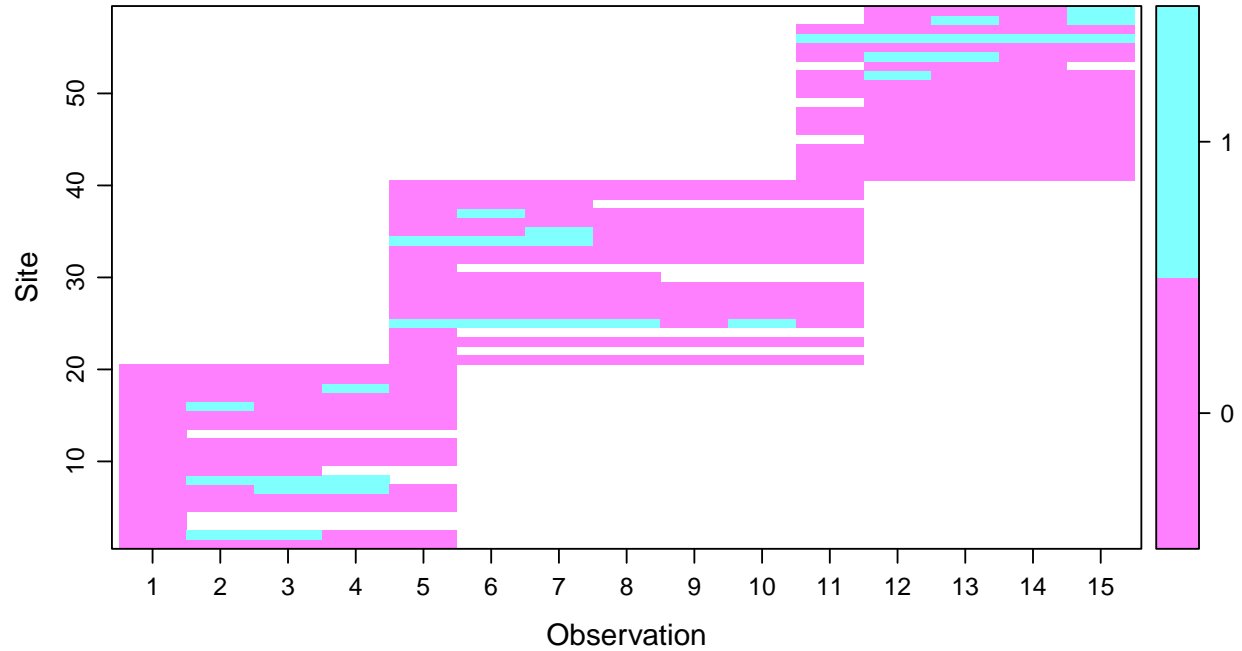
5.9.2   Seleccion de Modelos

[1] "Equus ferus" % latex table generated in R 3.1.0 by xtable 1.7-4 package % Wed May 20 18:52:32 2015

	__Equus ferus__ models	nPars	AIC	delta	AICwt	cumltvWt
3	p(.)psi(slope)	3	161.33	0.00	0.45	0.45
6	p(elev)psi(slope)	4	163.33	2.00	0.17	0.62
1	p(.)psi(.)	2	164.87	3.54	0.08	0.69
12	p(.)psi(dist_def)	3	165.96	4.63	0.04	0.74
2	p(.)psi(elev)	3	166.07	4.74	0.04	0.78
11	p(.)psi(canopy_c)	3	166.15	4.82	0.04	0.82
8	p(basal_a)psi(.)	3	166.51	5.18	0.03	0.86
4	p(.)psi(dist_rd)	3	166.77	5.44	0.03	0.89
14	p(basal_a)psi(dist_def)	4	167.64	6.31	0.02	0.90
9	p(basal_a)psi(elev)	4	167.75	6.42	0.02	0.92
10	p(basal_a)psi(canopy_c)	4	167.86	6.53	0.02	0.94
13	p(elev)psi(dist_def)	4	167.94	6.61	0.02	0.96
15	p(elev)psi(canopy_c)	4	168.00	6.67	0.02	0.97
5	p(elev)psi(elev)	4	168.06	6.73	0.02	0.99
7	p(elev)psi(dist_rd)	4	168.70	7.37	0.01	1.00

5.10   La Guanta (*Cuniculus paca*)

### 5.10.1   Matriz de datos colapsada a 15 dias
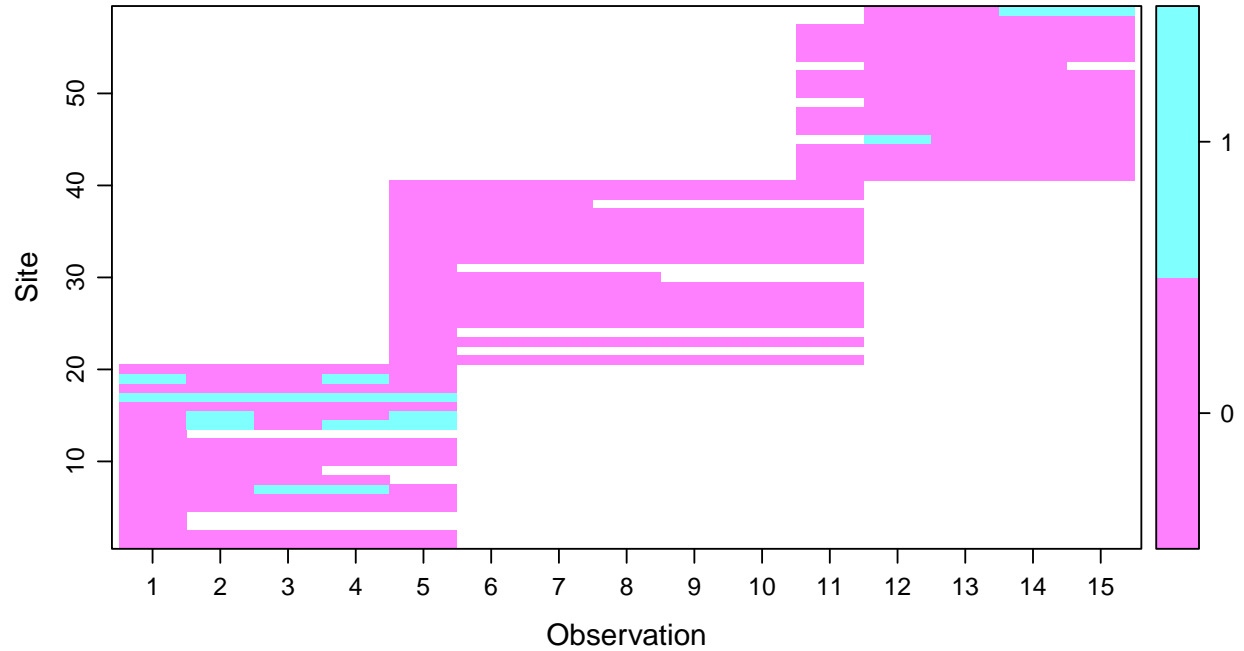
5.10.2   Seleccion de Modelos

[1] "Cuniculus paca" % latex table generated in R 3.1.0 by xtable 1.7-4 package % Wed May 20 18:52:34 2015

	__Cuniculus paca__ models	nPars	AIC	delta	AICwt	cumltvWt
11	p(.)psi(canopy_c)	3	80.27	0.00	0.47	0.47
15	p(elev)psi(canopy_c)	4	81.39	1.12	0.27	0.74
10	p(basal_a)psi(canopy_c)	4	81.61	1.34	0.24	0.98
12	p(.)psi(dist_def)	3	89.87	9.59	0.00	0.98
2	p(.)psi(elev)	3	90.12	9.85	0.00	0.99
13	p(elev)psi(dist_def)	4	90.82	10.54	0.00	0.99
14	p(basal_a)psi(dist_def)	4	90.82	10.55	0.00	0.99
9	p(basal_a)psi(elev)	4	90.87	10.60	0.00	0.99
5	p(elev)psi(elev)	4	91.16	10.89	0.00	0.99
1	p(.)psi(.)	2	91.48	11.21	0.00	1.00
8	p(basal_a)psi(.)	3	92.45	12.17	0.00	1.00
3	p(.)psi(slope)	3	93.29	13.01	0.00	1.00
4	p(.)psi(dist_rd)	3	93.44	13.16	0.00	1.00
6	p(elev)psi(slope)	4	93.96	13.68	0.00	1.00
7	p(elev)psi(dist_rd)	4	94.08	13.81	0.00	1.00

5.11 La Guatusa (*Dasyprocta punctata*)

### 5.11.1 Matriz de datos colapsada a 15 dias
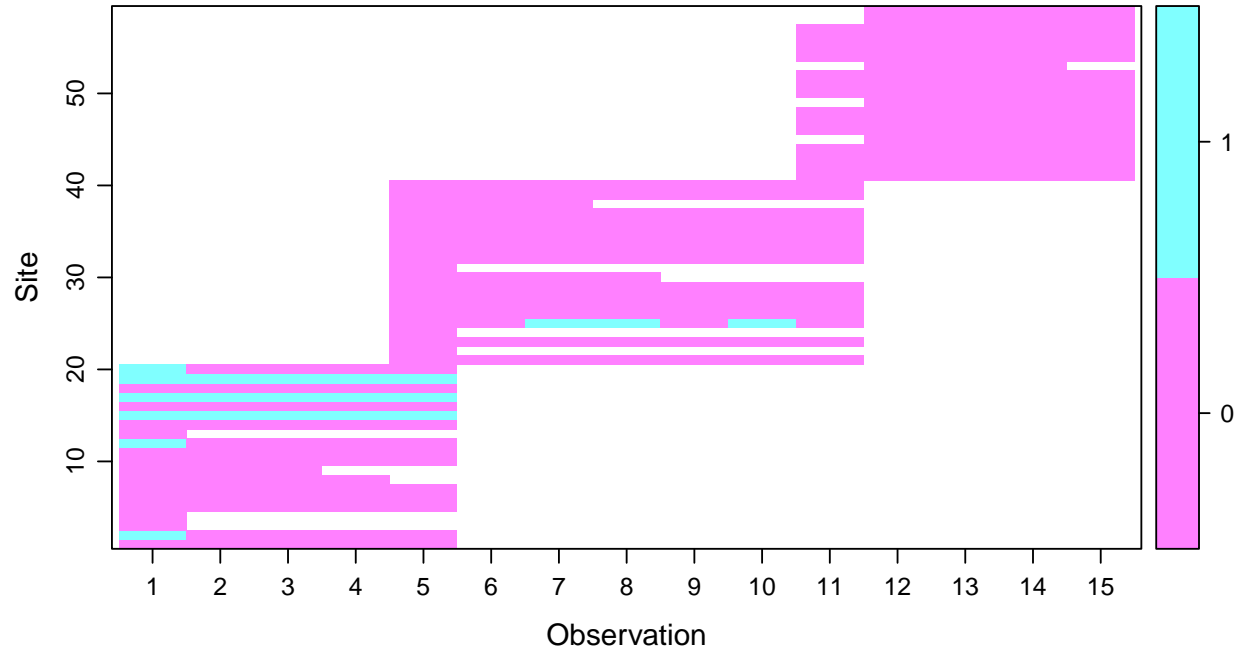
5.11.2 Seleccion de Modelos

[1] "Dasyprocta punctata" % latex table generated in R 3.1.0 by xtable 1.7-4 package % Wed May 20 18:52:37 2015

	Dasyprocta punctata models	nPars	AIC	delta	AICwt	cumltvWt
15	p(elev)psi(canopy_c)	4	54.37	0.00	0.77	0.77
13	p(elev)psi(dist_def)	4	58.42	4.05	0.10	0.87
7	p(elev)psi(dist_rd)	4	59.75	5.39	0.05	0.92
5	p(elev)psi(elev)	4	60.05	5.68	0.05	0.97
6	p(elev)psi(slope)	4	60.85	6.48	0.03	1.00
9	p(basal_a)psi(elev)	4	68.03	13.66	0.00	1.00
2	p(.)psi(elev)	3	68.93	14.56	0.00	1.00
14	p(basal_a)psi(dist_def)	4	81.57	27.20	0.00	1.00
12	p(.)psi(dist_def)	3	82.71	28.34	0.00	1.00
10	p(basal_a)psi(canopy_c)	4	86.18	31.81	0.00	1.00
11	p(.)psi(canopy_c)	3	87.33	32.97	0.00	1.00
8	p(basal_a)psi(.)	3	95.40	41.03	0.00	1.00
3	p(.)psi(slope)	3	96.02	41.66	0.00	1.00
1	p(.)psi(.)	2	96.63	42.26	0.00	1.00
4	p(.)psi(dist_rd)	3	98.38	44.01	0.00	1.00

5.12 El Pecari (*Pecari tajacu*)

### 5.12.1 Matriz de datos colapsada a 15 dias
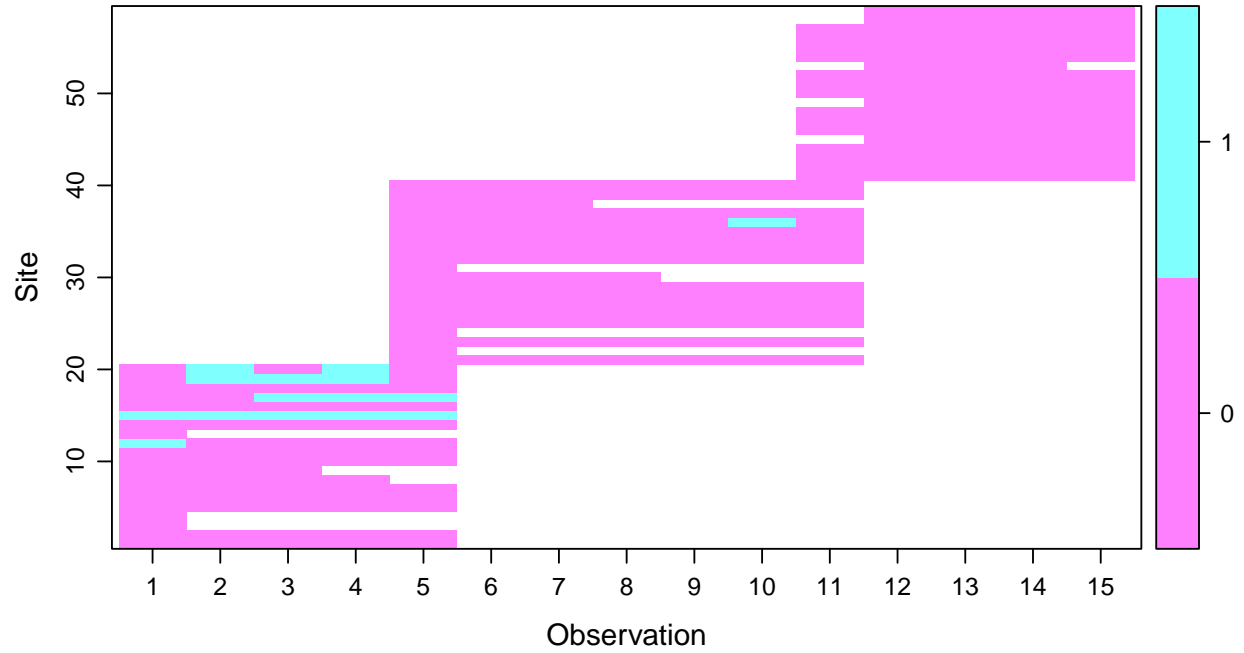
5.12.2 Seleccion de Modelos

[1] "Pecari tajacu" % latex table generated in R 3.1.0 by xtable 1.7-4 package % Wed May 20 18:52:40 2015

	Pecari tajacu models	nPars	AIC	delta	AICwt	cumltvWt
7	p(elev)psi(dist_rd)	4	57.00	0.00	0.61	0.61
13	p(elev)psi(dist_def)	4	59.84	2.84	0.15	0.75
15	p(elev)psi(canopy_c)	4	60.27	3.27	0.12	0.87
6	p(elev)psi(slope)	4	61.20	4.20	0.07	0.94
5	p(elev)psi(elev)	4	61.77	4.77	0.06	1.00
2	p(.)psi(elev)	3	72.16	15.16	0.00	1.00
9	p(basal_a)psi(elev)	4	74.15	17.15	0.00	1.00
12	p(.)psi(dist_def)	3	76.66	19.66	0.00	1.00
14	p(basal_a)psi(dist_def)	4	78.66	21.66	0.00	1.00
11	p(.)psi(canopy_c)	3	80.60	23.60	0.00	1.00
10	p(basal_a)psi(canopy_c)	4	82.60	25.60	0.00	1.00
3	p(.)psi(slope)	3	84.35	27.35	0.00	1.00
1	p(.)psi(.)	2	85.71	28.71	0.00	1.00
4	p(.)psi(dist_rd)	3	86.89	29.89	0.00	1.00
8	p(basal_a)psi(.)	3	87.71	30.71	0.00	1.00

5.13   El Armadillo (*Dasypus novemcinctus*)

5.13.1   Matriz de datos colapsada a 15 dias
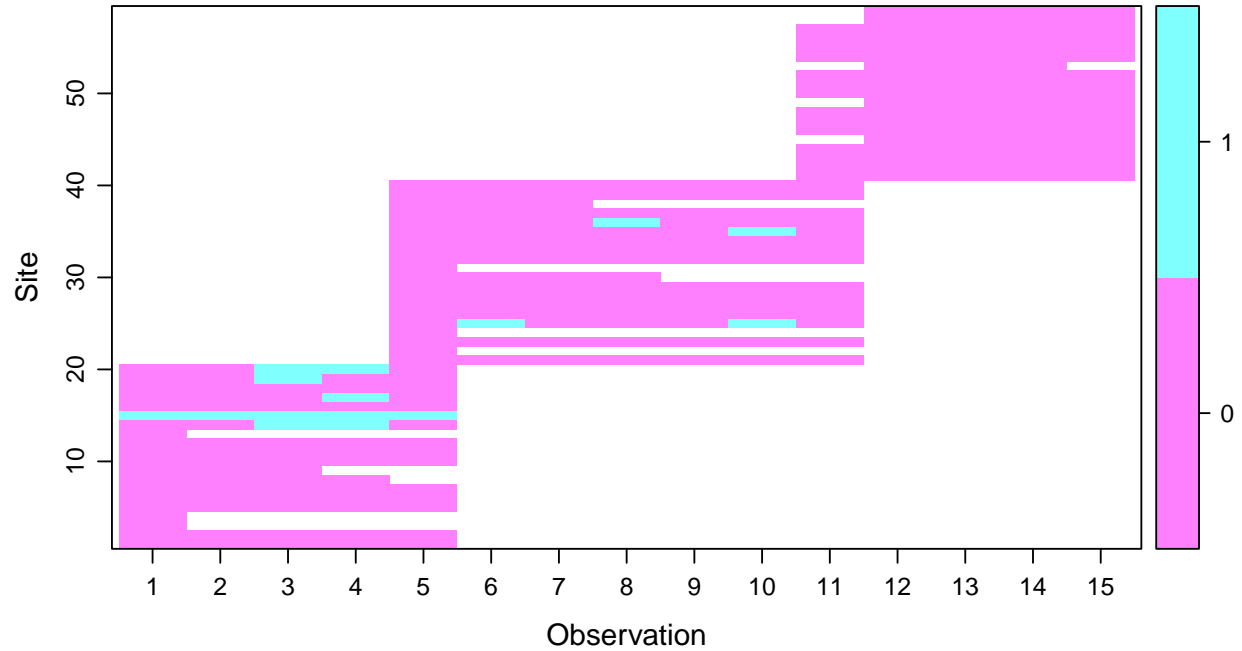
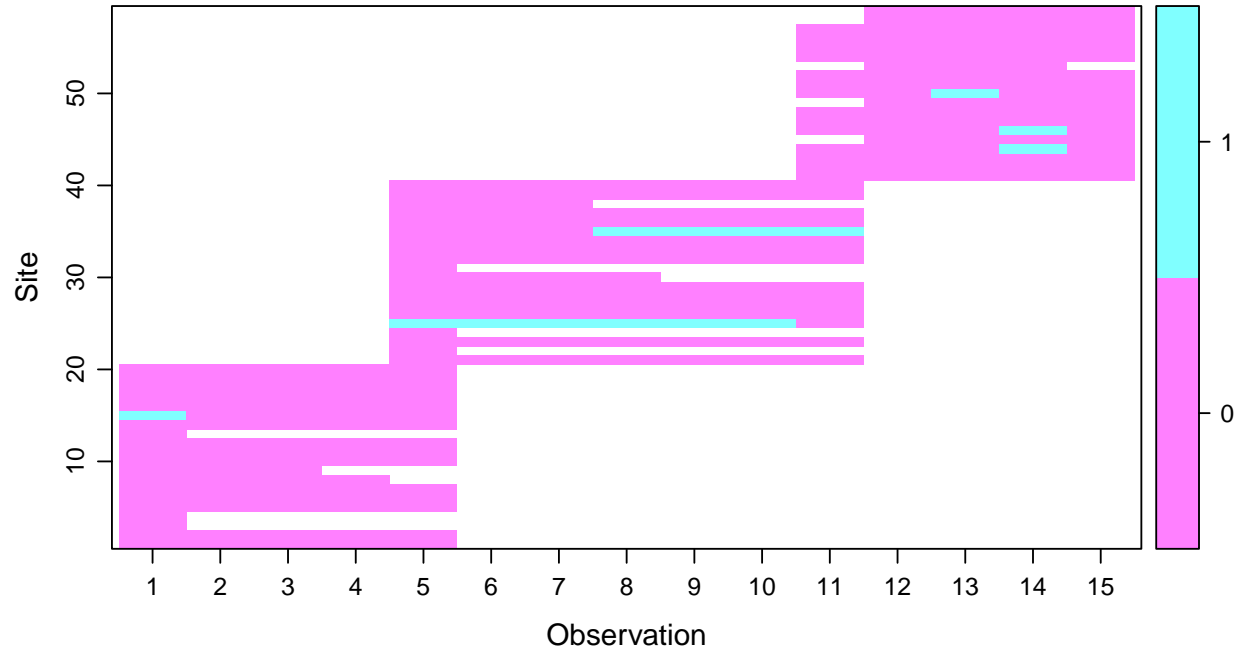### 5.13.2   Seleccion de Modelos

[1] "Dasypus novemcinctus" % latex table generated in R 3.1.0 by xtable 1.7-4 package % Wed May 20 18:52:42 2015

	Dasypus novemcinctus models	nPars	AIC	delta	AICwt	cumltvWt
7	p(elev)psi(dist__rd)	4	87.83	0.00	0.81	0.81
15	p(elev)psi(canopy__c)	4	92.63	4.80	0.07	0.89
6	p(elev)psi(slope)	4	93.65	5.82	0.04	0.93
5	p(elev)psi(elev)	4	94.26	6.43	0.03	0.96
13	p(elev)psi(dist__def)	4	94.97	7.14	0.02	0.99
2	p(.)psi(elev)	3	97.38	9.55	0.01	0.99
9	p(basal__a)psi(elev)	4	98.23	10.40	0.00	1.00
11	p(.)psi(canopy__c)	3	100.71	12.89	0.00	1.00
10	p(basal__a)psi(canopy__c)	4	102.09	14.27	0.00	1.00
12	p(.)psi(dist__def)	3	103.27	15.45	0.00	1.00
4	p(.)psi(dist__rd)	3	103.57	15.75	0.00	1.00
14	p(basal__a)psi(dist__def)	4	104.35	16.52	0.00	1.00
1	p(.)psi(.)	2	104.75	16.92	0.00	1.00
8	p(basal__a)psi(.)	3	106.02	18.19	0.00	1.00
3	p(.)psi(slope)	3	106.74	18.92	0.00	1.00

5.14   La Ardilla de Guayaquil (*Sciurus stramineus*)

5.14.1   Matriz de datos colapsada a 15 dias

5.14.2   Seleccion de Modelos

[1] "Sciurus stramineus" % latex table generated in R 3.1.0 by xtable 1.7-4 package % Wed May 20 18:52:44 2015

	Sciurus stramineus models	nPars	AIC	delta	AICwt	cumltvWt
1	p(.)psi(.)	2	87.05	0.00	0.16	0.16
8	p(basal_a)psi(.)	3	87.92	0.86	0.11	0.27
12	p(.)psi(dist_def)	3	88.01	0.95	0.10	0.37
2	p(.)psi(elev)	3	88.14	1.08	0.09	0.47
14	p(basal_a)psi(dist_def)	4	88.77	1.72	0.07	0.54
11	p(.)psi(canopy_c)	3	88.81	1.75	0.07	0.60
9	p(basal_a)psi(elev)	4	88.85	1.80	0.07	0.67
4	p(.)psi(dist_rd)	3	89.05	2.00	0.06	0.73
3	p(.)psi(slope)	3	89.05	2.00	0.06	0.79
10	p(basal_a)psi(canopy_c)	4	89.60	2.55	0.05	0.84
13	p(elev)psi(dist_def)	4	89.81	2.75	0.04	0.88
5	p(elev)psi(elev)	4	89.96	2.91	0.04	0.91
15	p(elev)psi(canopy_c)	4	90.37	3.32	0.03	0.95
6	p(elev)psi(slope)	4	90.65	3.59	0.03	0.97
7	p(elev)psi(dist_rd)	4	90.65	3.60	0.03	1.00