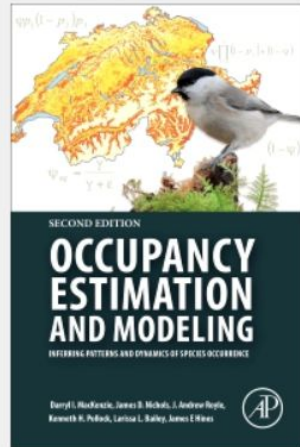


PRESENCE

Kendall O'Connell



Program PRESENCE 2.13.6

Start a new analysis by clicking File/New Project

Open an old analysis by clicking File/Open Project

Recent Modifications:

- Ver 13.5 (05Jun2020) - fix error in seasonal covariates for p1,p2 in RPresence
- Ver 13.4 (05Jun2020) - fix error in seasonal covariates for Cpsi,CR in RPresence
- Ver 13.1 (14May2020) - recompile RPresence for R 4.0.0
- Ver 12.43 (21Apr2020) - fix Nichols/Royal models in Presence GUI
- Ver 12.42 (14Apr2020) - fix do.4 model in RPresence
- Ver 12.41 (07Apr2020) - minor misc updates
- Ver 12.40 (31Mar2020) - modified limit on warnings about missing det/cov data
- Ver 12.39 (05Mar2020) - modified do.ms.2 model in RPresence, fix bug in cpsi output for multi-season model.
- Ver 12.38 (07Feb2020) - add seasonal cpsi to multi-season model.
- Ver 12.37 (03Jan2020) - fix MS/DD RPres model.

** New: 'Recent changes' in Help menu **



Notes

Data type not needed - just select type from Run menu

Royle models are now in 'Run' menu

Run menu disabled until project is created (click OK), or old project is opened

Title for this set of data

Enter data filename



Click to select file



Click to view file

Results filename

No. Sites

No. Occasions/season

No. Occasions

No. Site Covariates

No. methods/survey

No. Sampling Covariates



Input Data Form

Program PRESENCE

File View Run

Notes

Data type
type from

Royle model
menu

Run menu
created (c
is opened

view file

put Data Form

Program PRESENCE <<<< New: Model averaging revised >>>>

Data Input Form

File Edit Simulate Help

rows	cols	#srvy/seasn	#meth/srvy	#site covs	#samp covs
20	4	4	1	0	0

Presence/Absence data

data	1-1	1-2	1-3	1-4
site1				
site2				
site3				
site4				
site5				
site6				
site7				
site8				
site9				
site10				
site11				
site12				
site13				
site14				
site15				
site16				
site17				
site18				

File Home Insert Page Layout Formulas

Clipboard: Cut, Copy, Paste, Format Painter

Font: Calibri, 11, B, I, U, Grid, Undo, Redo

B12

	A	B	C	D
1	Site	Habitat Type		
2	1	3		
3	2	2		
4	3	2		
5	4	4		
6	5	1		
7	6	2		
8				
9				
10				

Program PRE

Data Input Form

File Edit Simulate Help

rows	cols	#srvy/seasn	#meth/srvy	#site covs	#samp covs
6	6	6	1	1	0

Presence/Absence data Site Covars

sitecov	C1
site1	5
site2	2
site3	2
site4	4
site5	1
site6	2

Notes

Data type
type from

Royle mo
menu

Run menu
created (o
is opened

view file

ut Data Form

Save as

Program PRE

Data Input Form

File View Run

File Edit Simulate Help

rows	cols	#srvy/season	#meth/srvy	#site covs	#samp covs
6	6	6	1	1	0

Presence/Absence data | Site Covars

data	1-1	1-2	1-3	1-4	1-5	1-6
site1	1	1	1	1	0	0
site2	1	1	0	0	0	0
site3	0	1	1	0	0	0
site4	0	1	0	1	0	0
site5	0	1	1	1	0	0
site6	0	0	0	0	0	0

view file

ut Data Form

&Save as

Program PRESENCE

Data Input Form

File Edit Simulate Help

rows	cols	#srvy/seasn	#meth/srvy	#site covs	#samp covs
6	6	6	1	1	0

Presence/Absence data | Site Covars

data	1-1	1-2	1-3	1-4	1-5	1-6
site1	1	1	1	1	0	0
site2	1	1	0	0	0	0
site3	0	1	1	0	0	0
site4	0	1	0	1	0	0
site5	0	1	1	1	0	0
site6	0	0	0	0	0	0

To save in MARK input format, use '.inp' for the last 4 characters in the filename

Save PRESENCE input file as:

Save in: Desktop

In Progress Kendall's Folder Programs

File name: bobcat

Save as type: Presence files

Save Cancel

Notes

Data type
type from

Royle model
menu

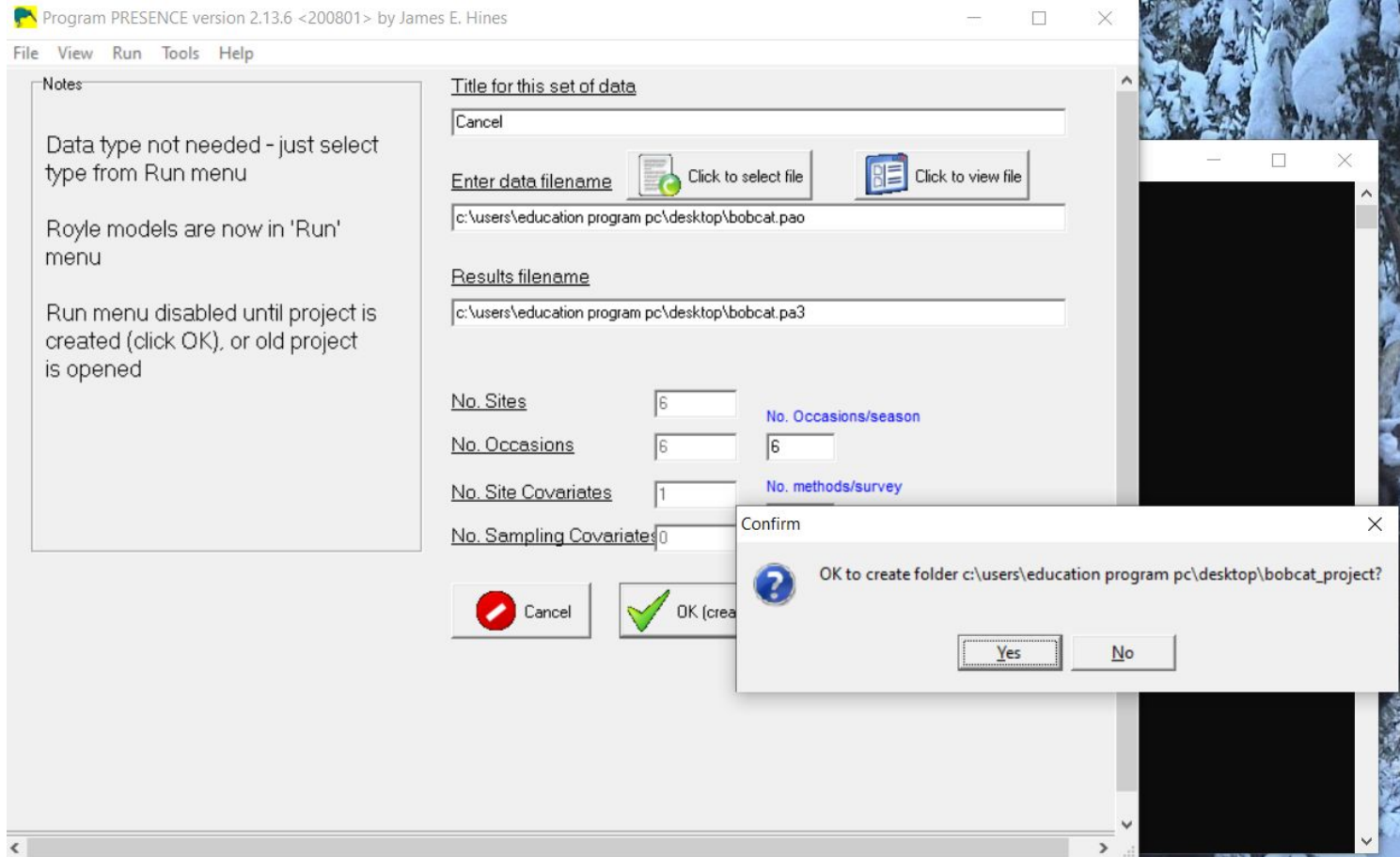
Run menu
created (c
is opened

view file

PRESENCE: c:\users\education program pc\desktop\bobcat_project\bobcat.pa3

File View Run Tools Help

Model	AIC	deltaAIC	AIC wgt	Model Lik	no.Par.	-2*LogLik



PRESENCEc:\users\education program pc\desktop\bobcat_project\bobcat.pa3

File View Run Tools Help

Model AIC deltaAIC AIC wgt Model Lik no.Par. -2*LogLik

Setup Numerical Estimation Run

Title for Analysis
Cancel

Model Name
psi(.).p(.)

Fix Parameters No Parameters Fixed

Model

Pre-defined
 Custom
 For corr. detections, Run multi-season version

Options

- List Input Data
- Supply initial values
- Set digits in estimates
- Set function evaluations
- Print V-C matrix
- Don't compute V-C matrix
- Bootstrap V-C matrix
- Assess Model Fit
- Use simplex algorithm for starting values
- Use Complimentary-log-log link for Psi
- Set upper bound for Royle model
- Run with random initial values

Cancel Run OK to Run Run OpenBugs

Design Matrix - Single-season model

File Init Retrieve model special

Occupancy	Detection			
-	a1			
psi	1			

PRESENCE:c:\users\education program pc\desktop\bobcat_project\bobcat.pa3

File View Run Tools Help

Model AIC deltaAIC AIC wgt Model Lik no.Par. -2*LogLik

Setup Numerical Estimation Run

Title for Analysis
Cancel

Model Name
1 group, Constant P

Fix Parameters No Parameters Fixed

Model

- Pre-defined
- Custom
- For corr. detections, Run multi-season version

1 group, Constant P
1 group, Survey-specific P
2 groups, Constant P
2 groups, Survey-specific P

Options

- List Input Data
- Supply initial values
- Set digits in estimates
- Set function evaluations
- Print V-C matrix
- Don't compute V-C matrix
- Bootstrap V-C matrix
- Assess Model Fit
- Use simplex algorithm for starting values
- Use Complimentary-log-log link for Psi
- Set upper bound for Royle model
- Run with random initial values

Cancel Run OK to Run Run OpenBugs

PRESENCE: c:\users\education program pc\desktop\bobcat_project\bobcat.pa3

File View Run Tools Help

Model	AIC	deltaAIC	AIC wgt	Model Lik	no.Par.	-2*LoqLik
1 group, Constant P	50.09	0.00	1.0000	1.0000	2	46.09

```
pres_1_group_Constant_P.out - Notepad
File Edit Format View Help

PRESENCE - Presence/Absence-Site Occupancy data analysis
Wed Nov 11 15:01:34 2020,      Version 2.13.6.
-----
==>C:\Progra~2\Presence\presence.exe
==>i=bobcat.pao
==>l=pres_1_group_Constant_P.out
==>name=1 group, Constant P
==>j=bobcat.dm
seed=-1605124894
varcov: nsig=6 eps=1.000000e-002
no model name N,T-->6,6

***** Input Data summary *****
Number of sites           = 6
Number of sampling occasions = 6
Number of states         = 2
Number of missing observations = 0
NSiteCovs-->1
site_covname[0]=C1
NSampCovs-->0
Primary periods=1 Secondary periods: 6
-----
Cancel
-----
N, T, C, Group 1, k, status, 0
```

pres_1_group_Constant_P.out - Notepad

File Edit Format View Help

=====

Matrix 6: rows=0, cols=0

=====

Naive occupancy estimate = 0.8333

modtype=1

Custom Model: 1 group, Constant P

pres_1_group_Constant_P.out - Notepad

File Edit Format View Help

```
=====  
Individual Site estimates of <psi>  
Site      estimate Std.err 95% conf. interval  
psi      1 site1      : 0.8677 0.1624 0.2907 - 0.9906  
=====
```

```
Individual Site estimates of <P[1]>  
Site      estimate Std.err 95% conf. interval  
P[1]     1 site1      : 0.4162 0.0972 0.2456 - 0.6095  
P[2]     1 site1      : 0.4162 0.0972 0.2456 - 0.6095  
P[3]     1 site1      : 0.4162 0.0972 0.2456 - 0.6095  
P[4]     1 site1      : 0.4162 0.0972 0.2456 - 0.6095  
P[5]     1 site1      : 0.4162 0.0972 0.2456 - 0.6095  
P[6]     1 site1      : 0.4162 0.0972 0.2456 - 0.6095  
=====
```

PRESENCE:c:\users\education program pc\desktop\bobcat_project\bobcat.pa3

File View Run Tools Help

Model AIC deltaAIC AIC wgt Model Lik no.Par. -2*LogLik

1 group, Cons

Setup Numerical Estimation Run

Title for Analysis
Cancel

Model Name
psi(.).p(.)

Fix Parameters No Parameters Fixed

Model

Pre-defined
 Custom
 For corr. detections, Run multi-season version

Options

- List Input Data
- Supply initial values
- Set digits in estimates
- Set function evaluations
- Print V-C matrix
- Don't compute V-C matrix
- Bootstrap V-C matrix
- Assess Model Fit
- Use simplex algorithm for starting values
- Use Complimentary-log-log link for Psi
- Set upper bound for Royle model
- Run with random initial values

Cancel Run OK to Run Run OpenBugs

Add Cols

Design Matrix - Single-season model

File Init Retrieve model special

Occupancy	Detection		
-	b1	b2	b3
P[1]	1	1	0
P[2]	1	1	0
P[3]	1	1	0
P[4]	1	0	1
P[5]	1	0	1
P[6]	1	0	1

PRESENCE:c:\users\education program pc\desktop\bobcat_project\bobcat.pa3

File View Run Tools Help

Model	AIC	deltaAIC	AIC wgt	Model Lik	no.Par.	-2*LogLik
psi(.)p(.)						

1 group, Cons

Setup Numerical Estimation Run

Title for Analysis
Cancel

Model Name
psi(.)p(.)

Fix Parameters No Parameters Fixed

Model

Pre-defined
 Custom
 For corr. detections, Run multi-season version

Options

- List Input Data
- Supply initial values
- Set digits in estimates
- Set function evaluations
- Print V-C matrix
- Don't compute V-C matrix
- Bootstrap V-C matrix
- Assess Model Fit
- Use simplex algorithm for starting values
- Use Complimentary-log-log link for Psi
- Set upper bound for Royle model
- Run with random initial values

Cancel Run OK to Run Run OpenBugs

*C1

Design Matrix - Single-season model

File Init Retrieve model special

Occupancy	Detection				
-	a1				
psi	C1				

PRESENCE: c:\users\education program pc\desktop\bobcat_project\bobcat.pa3

File View Run Tools Help

Model	AIC	deltaAIC	AIC wgt	Model Lik	no.Par.	-2*LogLik
psi(.)p(.) seasonal covars	47.21	0.00	0.4111	1.0000	4	39.21
psi(.)p(.)	47.31	0.10	0.3911	0.9512	4	39.31
psi(.)p(.) covars	50.03	2.82	0.1004	0.2441	2	46.03
1 group, Constant P	50.09	2.88	0.0974	0.2369	2	46.09

	A	B	C	D	E
1	Test	Detectability	True Occupancy	Naïve Occupancy	
2	Constant	0.4162±0.0972	0.8677±0.1624	0.8333	
3	Seasonal	0.4162±0.0972	0.8520±0.1572	0.8333	
4	Forest Type 1	0.4162±0.0972	0.6935±0.1355	0.8333	
5	Forest Type 2	0.4162±0.0972	0.83366±0.1744	0.8333	
6	Forest Type 3	0.4162±0.0972	0.9205±0.1400	0.8333	
7	Forest Type 4	0.4162±0.0972	0.9632±0.0903	0.8333	
8	Seasonal Forest 1	0.4162±0.0972	0.6838±0.1249	0.8333	
9	Seasonal Forest 2	0.4162±0.0972	0.8238±0.1677	0.8333	
10	Seasonal Forest 3	0.4162±0.0972	0.9100±0.1420	0.8333	
11	Seasonal Forest 4	0.4162±0.0972	0.9563±0.0967	0.8333	