

# Module 3 Assignment 1

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```
## Rows: 40 Columns: 5
## -- Column specification -----
## Delimiter: ","
## dbl (5): y_1, y_2, y_3, y_4, y_5
##
## i Use 'spec()' to retrieve the full column specification for this data.
## i Specify the column types or set 'show_col_types = FALSE' to quiet this message.
## Rows: 40 Columns: 5
## -- Column specification -----
## Delimiter: ","
## dbl (5): j_1, j_2, j_3, j_4, j_5
##
## i Use 'spec()' to retrieve the full column specification for this data.
## i Specify the column types or set 'show_col_types = FALSE' to quiet this message.
```

1.

```
## # A tibble: 1 x 3
##       n n_detect naive_occ
##   <int> <int>    <dbl>
## 1    40    14    0.35
```

3.

4.

```
## Warning: obsCovs contains characters. Converting them to factors.
```

```
## Data frame representation of unmarkedFrame object.
##   y.1 y.2 y.3 y.4 y.5 time.1 time.2 time.3 time.4 time.5
## 1   0   0   0   0   0     1     2     3     4     5
## 2   0   0   1   1   0     1     2     3     4     5
## 3   0   0   0   0   0     1     2     3     4     5
## 4   0   0   0   0   0     1     2     3     4     5
## 5   0   0   0   0   0     1     2     3     4     5
## 6   0   0   1   0   0     1     2     3     4     5
## 7   1   0   0   0   1     1     2     3     4     5
## 8   0   0   0   0   0     1     2     3     4     5
## 9   0   0   0   0   0     1     2     3     4     5
## 10  1   0   0   1   1     1     2     3     4     5
```

5.

6.  
7.

```
##               nPars    AIC delta AICwt cumltvWt
## tiger_pdot_psidot      2 142.94  0.00 0.969    0.97
## tiger_ptime_psidot     6 149.80  6.86 0.031    1.00
```

9.

```
## psi(Int)    p(Int)
## 0.4238748 0.2948984
```

```
##           0.025    0.975
## p(Int) 0.1829776 0.4385327
```

10.

```
## psi(Int)    p(Int)
## 0.4238748 0.2948984
```

```
##           0.025    0.975
## psi(Int) 0.2471549 0.6224758
```

12.

```
## # A tibble: 1 x 3
##       n n_detect naive_occ
##   <int>   <int>   <dbl>
## 1     40     25    0.625
```

13.

14.

```
## Warning: obsCovs contains characters. Converting them to factors.
```

```
## Data frame representation of unmarkedFrame object.
##   y.1 y.2 y.3 y.4 y.5 time.1 time.2 time.3 time.4 time.5
## 1    0  0  0  0  0     1     2     3     4     5
## 2    0  0  0  0  0     1     2     3     4     5
## 3    0  0  0  1  0     1     2     3     4     5
## 4    0  0  0  0  0     1     2     3     4     5
## 5    0  0  0  0  0     1     2     3     4     5
## 6    0  1  1  0  0     1     2     3     4     5
## 7    0  0  0  0  0     1     2     3     4     5
## 8    0  1  0  1  0     1     2     3     4     5
## 9    0  0  1  1  0     1     2     3     4     5
## 10   0  0  0  0  0     1     2     3     4     5
```

15.

16.

	nPars	AIC	delta	AICwt	cumltvWt
## diamond_pdot_psidot	2	209.51	0.00	0.964	0.96
## diamond_ptime_psidot	6	216.06	6.55	0.036	1.00

17.

## psi(Int)	p(Int)
## 0.7813023	0.2751816

##	0.025	0.975
## p(Int)	0.1895566	0.3812877

##	0.025	0.975
## psi(Int)	0.4842553	0.9314732