## Module 4 Assignment 1

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## 2022-11-01

3.

```
## # A tibble: 1 x 3
        n n_detect naive_occ
     <int>
             <int>
                       <dbl>
## 1
                        0.35
  6.
## 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
                              1
                                     2
                                            3
## 2
       0
           0
               1
                       0
                              1
                                     2
                                            3
## 3
                                     2
       0
           0
               0
                   0
                       0
                                            3
                                                          5
## 4
           0
                   0
                                     2
                                            3
       0
              0
                       0
                              1
## 5
           0 0
                   0
          0 1
## 6
       0
                   0
                     0
                              1
                                     2
                                            3
                                                          5
## 7
           0 0
                  0
                              1
                                            3
                                                          5
## 8
       0
          0 0 0
                     0
                              1
                                            3
                                                          5
## 9
                                                          5
## 10
       1
```

9.

```
## tiger_pdot_psidot 2 142.94 0.00 0.969 0.97  
## tiger_ptime_psidot 6 149.80 6.86 0.031 1.00
```

10.

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

12.

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

13.

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

15.

18.

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

## Data frame representation of unmarkedFrame object.

##		y.1	y.2	у.3	y.4	y.5	${\tt time.1}$	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

21.

```
## diamond_pdot_psidot 2 209.51 0.00 0.964 0.96  
## diamond_ptime_psidot 6 216.06 6.55 0.036 1.00
```

22.

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

23.

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

24.

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