Alligator food

March 5, 2012

```
> library(EffectStars)
> data(alligator)
```

Effect Stars for multinomial logit model for alligator data.

```
> star.nominal(Food ~ Size + Lake + Gender, alligator, cex.cat = 1, cex.labels
+ = 1.2, lwd.circle = 1.5)

$odds
       (Intercept)  Size>2.3 LakeHancock LakeOklawaha LakeTrafford Gendermale
bird     0.3641677 2.2214343   1.5482243    0.3216860    0.8476108  0.8053126
fish     4.1452857 1.0702729   0.8709613    0.5577586    0.2460245  1.4768389
invert   4.9086340 0.2812961   0.1468021    1.3900682    0.7815296  0.9295460
other    0.9912782 0.8003797   1.8746415    0.5724835    1.1681700  1.1472118
rep      0.1361407 1.8681519   2.6947399    7.0036183    5.2525924  0.7884749

$coefficients
        (Intercept)   Size>2.3 LakeHancock LakeOklawaha LakeTrafford
bird   -1.010140681  0.7981531   0.4371086   -1.1341792   -0.1653337
fish    1.421971710  0.0679137  -0.1381577   -0.5838291   -1.4023241
invert  1.590995701 -1.2683473  -1.9186701    0.3293528   -0.2465023
other  -0.008760051 -0.2226691   0.6284174   -0.5577714    0.1554384
rep    -1.994066679  0.6249496   0.9913017    1.9464269    1.6587217
        Gendermale
bird   -0.21652472
fish    0.38990392
invert -0.07305897
other   0.13733444
rep    -0.23765467

$se
       (Intercept)  Size>2.3 LakeHancock LakeOklawaha LakeTrafford Gendermale
bird     0.6340256 0.5174911   0.6640651    0.9775520    0.6904218  0.5470563
fish     0.3412751 0.2751326   0.3784313    0.4316856    0.4010549  0.2832367
invert   0.3646410 0.3344380   0.5444955    0.4600936    0.4123390  0.3250211
other    0.4682316 0.3682000   0.5055102    0.6611601    0.5079579  0.3785243
rep      0.8652854 0.5046065   0.9549066    0.9100412    0.8878203  0.5369554

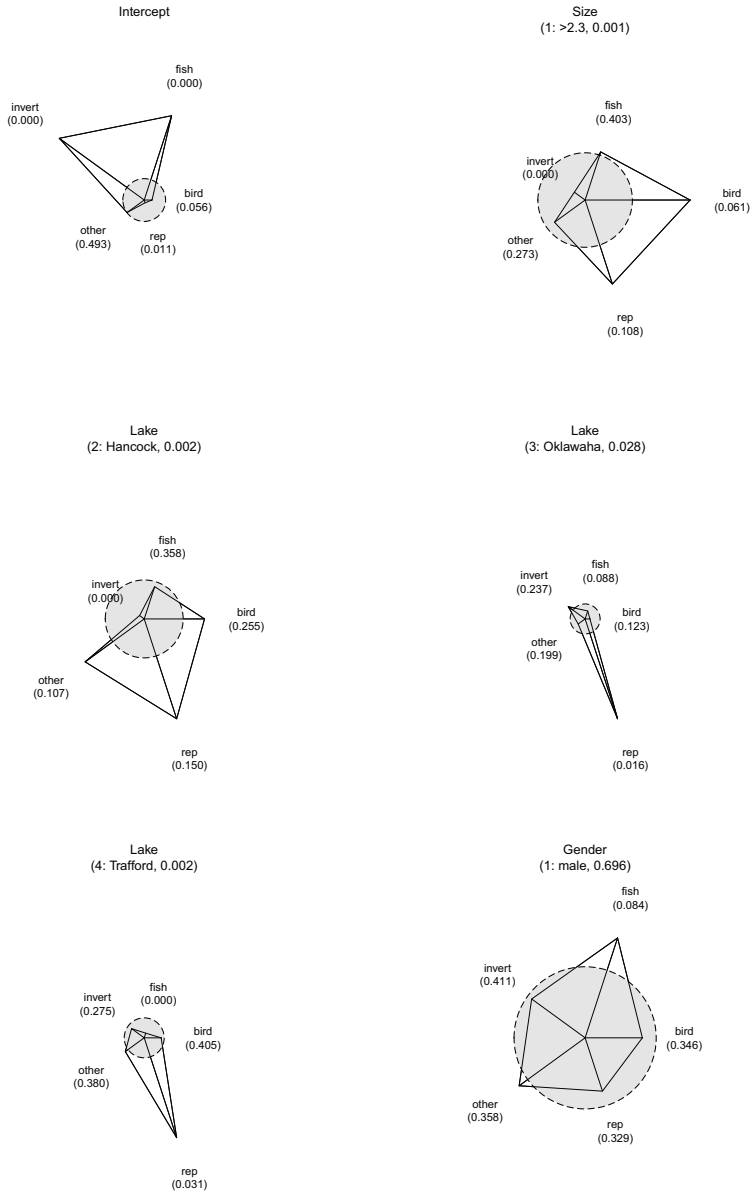
$pvalues
        (Intercept)     Size>2.3  LakeHancock LakeOklawaha LakeTrafford
```

```
bird   5.555569e-02 6.149411e-02 0.2551946657   0.12297882 0.4053714525
fish   1.545588e-05 4.025161e-01 0.3575258179   0.08811723 0.0002356238
invert 6.409150e-06 7.457695e-05 0.0002127366   0.23704549 0.2749817956
other  4.925367e-01 2.726725e-01 0.1069090405   0.19943940 0.3797998492
rep    1.059676e-02 1.077674e-01 0.1496085434   0.01622456 0.0308595741
       Gendermale
bird    0.3461264
fish    0.0843178
invert  0.4110743
other   0.3583714
rep     0.3290287

$p_rel
        Size>2.3 LakeHancock LakeOklawaha LakeTrafford Gendermale
[1,] 0.001476994   0.0018376   0.02827814  0.002265663  0.6963208

$xlim
[1] 18.20941 70.03618

$ylim
[1] 17.43901 97.84055
```



Effect Stars for multinomial logit model for alligator data with unscaled stars.

```
> star.nominal(Food ~ Size + Lake + Gender, alligator, cex.cat = 1, cex.labels
+ = 1.2, lwd.circle = 1.5, scale = FALSE)

$odds
       (Intercept)  Size>2.3 LakeHancock LakeOklawaha LakeTrafford Gendermale
```

```
bird     0.3641677 2.2214343   1.5482243    0.3216860    0.8476108  0.8053126
fish     4.1452857 1.0702729   0.8709613    0.5577586    0.2460245  1.4768389
invert   4.9086340 0.2812961   0.1468021    1.3900682    0.7815296  0.9295460
other    0.9912782 0.8003797   1.8746415    0.5724835    1.1681700  1.1472118
rep      0.1361407 1.8681519   2.6947399    7.0036183    5.2525924  0.7884749

$coefficients
        (Intercept)   Size>2.3 LakeHancock LakeOklawaha LakeTrafford
bird   -1.010140681  0.7981531   0.4371086   -1.1341792   -0.1653337
fish    1.421971710  0.0679137  -0.1381577   -0.5838291   -1.4023241
invert  1.590995701 -1.2683473  -1.9186701    0.3293528   -0.2465023
other  -0.008760051 -0.2226691   0.6284174   -0.5577714    0.1554384
rep    -1.994066679  0.6249496   0.9913017    1.9464269    1.6587217
        Gendermale
bird   -0.21652472
fish    0.38990392
invert -0.07305897
other   0.13733444
rep    -0.23765467

$se
       (Intercept)  Size>2.3 LakeHancock LakeOklawaha LakeTrafford Gendermale
bird     0.6340256 0.5174911   0.6640651    0.9775520    0.6904218  0.5470563
fish     0.3412751 0.2751326   0.3784313    0.4316856    0.4010549  0.2832367
invert   0.3646410 0.3344380   0.5444955    0.4600936    0.4123390  0.3250211
other    0.4682316 0.3682000   0.5055102    0.6611601    0.5079579  0.3785243
rep      0.8652854 0.5046065   0.9549066    0.9100412    0.8878203  0.5369554

$pvalues
        (Intercept)     Size>2.3  LakeHancock LakeOklawaha LakeTrafford
bird   5.555569e-02 6.149411e-02 0.2551946657   0.12297882 0.4053714525
fish   1.545588e-05 4.025161e-01 0.3575258179   0.08811723 0.0002356238
invert 6.409150e-06 7.457695e-05 0.0002127366   0.23704549 0.2749817956
other  4.925367e-01 2.726725e-01 0.1069090405   0.19943940 0.3797998492
rep    1.059676e-02 1.077674e-01 0.1496085434   0.01622456 0.0308595741
       Gendermale
bird    0.3461264
fish    0.0843178
invert  0.4110743
other   0.3583714
rep     0.3290287

$p_rel
        Size>2.3 LakeHancock LakeOklawaha LakeTrafford Gendermale
[1,] 0.001476994   0.0018376   0.02827814  0.002265663  0.6963208

$xlim
[1] 18.20941 70.03618

$ylim
```

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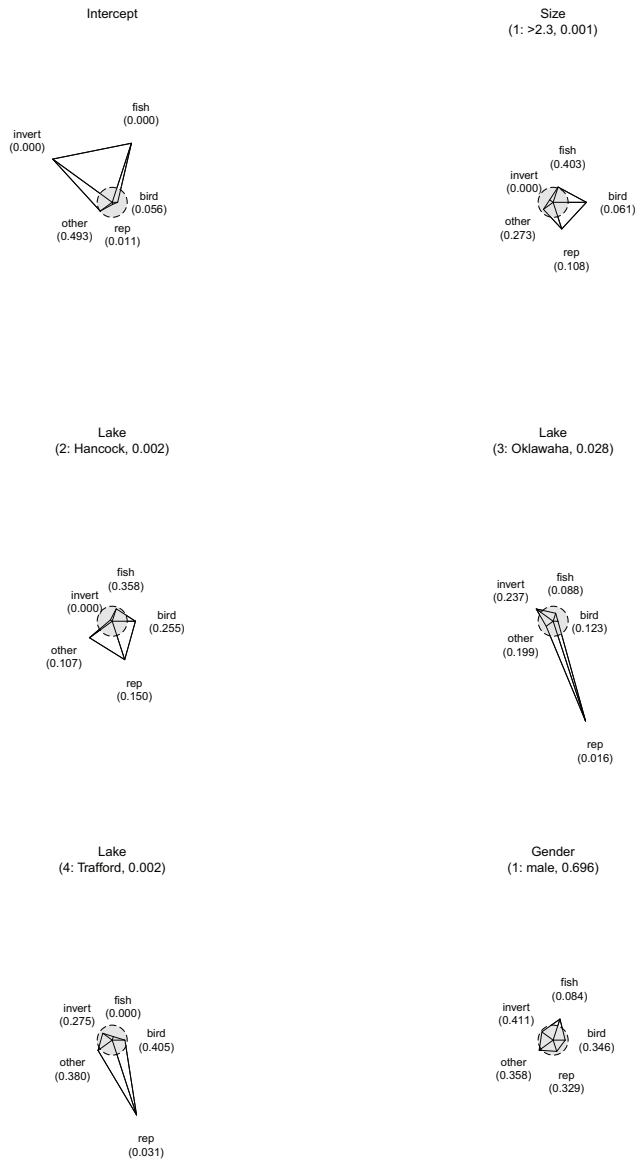
[1] 17.43901 97.84055
```



Effect Stars for multinomial logit model for alligator data without intercept.

```
> star.nominal(Food ~ Size + Lake + Gender, alligator, cex.cat = 1, cex.labels
+ = 1.2, lwd.circle = 1.5, select = 2:6, col.circle = "blue")

$odds
       (Intercept)  Size>2.3 LakeHancock LakeOklawaha LakeTrafford Gendermale
```

```
bird     0.3641677 2.2214343   1.5482243    0.3216860    0.8476108  0.8053126
fish     4.1452857 1.0702729   0.8709613    0.5577586    0.2460245  1.4768389
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invert  1.590995701 -1.2683473  -1.9186701    0.3293528   -0.2465023
other  -0.008760051 -0.2226691   0.6284174   -0.5577714    0.1554384
rep    -1.994066679  0.6249496   0.9913017    1.9464269    1.6587217
        Gendermale
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$se
       (Intercept)  Size>2.3 LakeHancock LakeOklawaha LakeTrafford Gendermale
bird     0.6340256 0.5174911   0.6640651    0.9775520    0.6904218  0.5470563
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invert   0.3646410 0.3344380   0.5444955    0.4600936    0.4123390  0.3250211
other    0.4682316 0.3682000   0.5055102    0.6611601    0.5079579  0.3785243
rep      0.8652854 0.5046065   0.9549066    0.9100412    0.8878203  0.5369554

$pvalues
        (Intercept)     Size>2.3  LakeHancock LakeOklawaha LakeTrafford
bird   5.555569e-02 6.149411e-02 0.2551946657   0.12297882 0.4053714525
fish   1.545588e-05 4.025161e-01 0.3575258179   0.08811723 0.0002356238
invert 6.409150e-06 7.457695e-05 0.0002127366   0.23704549 0.2749817956
other  4.925367e-01 2.726725e-01 0.1069090405   0.19943940 0.3797998492
rep    1.059676e-02 1.077674e-01 0.1496085434   0.01622456 0.0308595741
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```