ANNEX 1

**Table S1.** Results of each statistical model and Post hoc (Turkey test) comparisons.

All assumptions for the GLMM analyses were met (collinearity and overdispersion).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **MATURE FEMALES *(N=14 individuals; N=2718 calls)*** | | | | | |
|  |  |  | ***Z*** | ***P*** | |
| **Social Audience (anova)** |  |  | 1128.062 | <0.0001 | \*\*\* |
| **Social size (anova)** |  |  | 7.62 | 0.005 | \*\*\* |
| **Social\_Audience:Audience Size** |  |  | 6.044 | 0.109 |  |
| **Full *-* Null model (anova)** |  |  | 1071.4 | <0.0001 | \*\*\* |
| ***Post hoc (Turkey test)*** | ***Estimate*** | ***SD*** | ***Z*** | ***P*** | |
| **Both sexes - Alone == 0** | 1.031 | 0.393 | 2.626 | 0.037 | \* |
| **Same sexes - Alone == 0** | -0.403 | 0.409 | -0.986 | 0.737 |  |
| **Opposite sexes - Alone == 0** | 1.564 | 0.420 | 3.724 | <0.001 | \*\*\* |
| **Same sex- Both sexes == 0** | -1.442 | 0.144 | -10.033 | <0.001 | \*\*\* |
| **Opposite sex - Both sexes == 0** | 0.525 | 0.166 | 3.154 | 0.007 | \*\* |
| **Same sex - Opposite sexes == 0** | -1.989 | 0.201 | -9.808 | <0.001 | \*\*\* |
| ***Model 2*  (N=4 individuals; N=486 calls)** | ***Estimate*** | ***SD*** | ***Z*** | ***P*** | |
| **Intercept** | 0.62 | 0.14 | 4.5 | <0.0001 |  |
| **Presence of son** | 0.77 | 0.07 | 10.59 | <0.0001 | \*\*\* |
| **Full *-* Null model (anova)** |  |  | 105.11 | <0.0001 | \*\*\* |
| **MATURE MALES (*N=6 individuals ; N=622 calls)*** | | | | | |
|  |  |  | ***Z*** | ***P*** | |
| **Social Audience (anova)** |  |  | 60.38 | <0.0001 | \*\*\* |
| **Audience Size** |  |  | 1.85 | 0.17 |  |
| **Social\_Audience:Audience Size** |  |  | 5.25 | 0.07 |  |
| **Full *-* Null model (anova)** |  |  | 142.15 | <0.0001 | \*\*\* |
| ***Post hoc (Turkey test)*** | ***Estimate*** | ***SD*** | ***Z*** | ***P*** | |
| **Same sex - Both sexes == 0** | -5.006 | 1.322 | -3.786 | 0.0003 | \*\*\* |
| **Opposite sex - Both sexes == 0** | 0.124 | 0.218 | 0.569 | 0.821 |  |
| **Same sex - Opposite sex == 0** | -5.130 | 1.326 | -3.868 | 0.0002 | \*\*\* |
| **IMMATURE FEMALES *(N=9 individuals ; N=444 calls)*** | | | | | |
|  |  |  | ***Z*** | ***P*** | |
| **Social Audience (anova)** |  |  | 19.88 | 0.0002 | \*\*\* |
| **Audience Size** |  |  | 11.89 | 0.0006 | \*\*\* |
| **Social\_Audience:Audience Size** |  |  | 8.24 | 0.04 | \* |
| **Full *-* Null model (anova)** |  |  | 49.91 | <0.0001 | \*\*\* |
| ***Post hoc (Turkey test)*** | ***Estimate*** | ***SD*** | ***Z*** | ***P*** | |
| **Only Mother - Both sexes == 0** | 1.083 | 0.951 | 1.139 | 0.638 |  |
| **Same sex - Both sexes == 0** | 1.304 | 0.320 | 4.074 | <0.001 | \*\*\* |
| **Opposite sex - Both sexes == 0** | 0.660 | 0.741 | 0.891 | 0.791 |  |
| **Same sex - Only Mother == 0** | 0.221 | 0.928 | 0.238 | 0.995 |  |
| **Opposite sex - Only Mother == 0** | -0.420 | 1.150 | -0.370 | 0.980 |  |
| **Same sex - Opposite sex == 0** | 0.644 | 0.735 | 0.876 | 0.799 | \*\* |
| **IMMATURE MALES  *(N=7 individuals ; N=299 calls)*** | | | | | |
|  |  |  | ***Z*** | ***P*** | |
| **Social Audience (anova)** |  |  | 166.79 | <0.0001 | \*\*\* |
| **Audience Size** |  |  | 15.42 | <0.0001 | \*\*\* |
| **Social\_Audience:Audience Size** |  |  | 4.05 | 0.26 |  |
| **Full *-* Null model (anova)** |  |  | 302.24 | <0.0001 | \*\*\* |
| ***Post hoc (Turkey test)*** | ***Estimate*** | ***SD*** | ***Z*** | ***P*** | |
| **Only Mother - Both sexes == 0** | 1.816 | 0.493 | 3.685 | <0.003 | \*\* |
| **Opposite sex - Both sexes == 0** | -1.791 | 0.735 | -2.437 | 0.06 |  |
| **Same sex - Both sexes == 0** | 1.457 | 0.505 | 2.886 | 0.019 | \* |
| **Opposite sex - Only Mother == 0** | -3.607 | 0.804 | -4.487 | <0.001 | \*\*\* |
| **Same sex - Only Mother == 0** | -0.359 | 0.618 | -0.581 | 0.935 |  |
| **Same sex - Opposite sex == 0** | 3.248 | 0.824 | 3.940 | <0.001 | \*\*\* |

Results of each statistical model and Post hoc (Turkey test) comparisons.

All assumptions for the GLMM and GLM analyses were met (collinearity and overdispersion).

**Table S2.** Post-hoc comparison for the analysis of social events vs. call rate.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | ***Mean Difference*** | ***SE*** | ***P*** |
| Fission | Fusion | -0.2887\* | 0.07872 | 0.002 |
| Fission & Fusion | -0.5049\* | 0.08320 | <0.001 |
| Stable | 0.0786 | 0.08265 | 0.777 |
| Fusion | Fission | 0.2887\* | 0.07872 | 0.002 |
| Fission & Fusion | -0.2162\* | 0.05713 | 0.001 |
| Stable | 0.3673\* | 0.05633 | <0.001 |
| Fission & Fusion | Fission | 0.5049\* | 0.08320 | <0.001 |
| Fusion | 0.2162\* | 0.05713 | 0.001 |
| Stable | 0.5835\* | 0.06243 | <0.001 |
| Stable | Fission | -0.0786 | 0.08265 | 0.777 |
| Fusion | -0.3673\* | 0.05633 | <0.001 |
| Fission & Fusion | -0.5835\* | 0.06243 | <0.001 |

**Table S3.** Post-hoc comparison for the analysis of changes in audience composition on call vs. call rate.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | ***Mean Difference*** | ***SE*** | ***P*** |
| One sex-One sex | One sex-Both sexes | -.3513\* | 0.06808 | <0.001 |
| Both sexes-One sex | -0.2048 | 0.07986 | 0.082 |
| Both sexes-Both sexes | -0.3003\* | 0.07508 | 0.001 |
| No chenges (Stable) | 0.1901\* | 0.06617 | 0.037 |
| One sex-Both sexes | One sex-One sex | 0.3513\* | 0.06808 | <0.001 |
| Both sexes-One sex | 0.1465 | 0.07909 | 0.348 |
| Both sexes-Both sexes | 0.0510 | 0.07426 | 0.959 |
| No chenges (Stable) | 0.5414\* | 0.06524 | 0.000 |
| Both sexes-One sex | One sex-One sex | 0.2048 | 0.07986 | 0.082 |
| One sex-Both sexes | -0.1465 | 0.07909 | 0.348 |
| Both sexes-Both sexes | -0.0955 | 0.08520 | 0.795 |
| No chenges (Stable) | 0.3949\* | 0.07746 | <0.001 |
| Both sexes-Both sexes | One sex-One sex | 0.3003\* | 0.07508 | 0.001 |
| One sex-Both sexes | -0.0510 | 0.07426 | 0.959 |
| Both sexes-One sex | 0.0955 | 0.08520 | 0.795 |
| No chenges (Stable) | 0.4905\* | 0.07252 | <0.001 |
| No chenges (Stable) | One sex-One sex | -0.1901\* | 0.06617 | 0.037 |
| One sex-Both sexes | -0.5414\* | 0.06524 | <0.001 |
| Both sexes-One sex | -0.3949\* | 0.07746 | <0.001 |
| Both sexes-Both sexes | -0.4905\* | 0.07252 | <0.001 |