# Supplementary material

**Table 1 Appendix** Number of individuals, grouped by year and sex, in which the different behavioural traits and hormone profiles were measured

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Years** | | | | | | | | | | | | | | | | | | | | |  | | |  | | |
|  | **2012** | | **2013** | | | **2014** | | | **2015** | | | **2016** | | | **2017** | | | **2018** | | | **Total** | | | | |
|  | **Females** | **Males** | | **Females** | **Males** | | **Females** | **Males** | | **Females** | **Males** | | **Females** | **Males** | | **Females** | **Males** | | **Females** | **Males** | | | **Females** | **Males** | | |
| **Territoriality** | - | - | | - | - | | - | 8 | | - | 7 | | - | 7 | | - | 16 | | - | 6 | | | - | 44 | | |
| **Response to researchers** | - | - | | 9 | - | | 9 | - | | 9 | - | | 11 | - | | 16 | - | | 12 | - | | | 66 | - | | |
| **Breath rate** | - | - | | - | - | | - | - | | 14 | 8 | | 14 | 8 | | 21 | 21 | | 13 | 7 | | | 62 | 44 | | |
| **Parental care** | 4 | 2 | | 5 | 3 | | 18 | 15 | | 17 | 14 | | 15 | 14 | | 20 | 21 | | 17 | 15 | | | 96 | 84 | | |
| **Corticosterone in blood** | - | - | | 12 | - | | 15 | - | | 7 | - | | - | - | | - | - | | - | - | | | 34 | - | | |
| **Corticosterone in feathers** | 8 | 1 | | 14 | 5 | | 13 | 11 | | 11 | 11 | | - | - | | - | - | | - | - | | | 46 | 28 | | |

**Table 2 Appendix** Full results of the saturated and reduced statistical models analysing male territoriality as latency of response against an intruder in relation to plumage coloration. Significant terms are depicted in bold

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | **Saturated model** | | | | | **Reduced model** | | | | |
| **Dependent variable** | **Explanatory variable** |  | ***β*** | **SE** | **Statistic** | **df** | ***P*** | ***β*** | **SE** | **Statistic** | **df** | ***P*** |
| Latency of response | Male colour\*Year | 2014 | 64.68 | 43.95 | 0.66 | 4, 17 | 0.628 |  |  |  |  |  |
|  |  | 2015 | -7.86 | 30.68 |  |  |  |  |  |  |  |  |
|  |  | 2016 | 22.13 | 25.45 |  |  |  |  |  |  |  |  |
|  |  | 2017 | -1.54 | 17.64 |  |  |  |  |  |  |  |  |
|  |  | 2018 | -1.37 | 16.25 |  |  |  |  |  |  |  |  |
|  | Male colour |  | 0.00 | 0.00 | 1.47 | 1, 17 | 0.241 | 11.61 | 6.21 | 3.5 | 1, 28 | 0.072 |
|  | Year | 2014 | -401.10 | 316.56 | 0.64 | 4, 17 | 0.644 |  |  |  |  |  |
|  |  | 2015 | 90.19 | 239.75 |  |  |  |  |  |  |  |  |
|  |  | 2016 | -129.19 | 180.33 |  |  |  |  |  |  |  |  |
|  |  | 2017 | 27.91 | 133.54 |  |  |  |  |  |  |  |  |
|  |  | 2018 | 0.00 | 0.00 |  |  |  |  |  |  |  |  |
|  | Female colour |  | -0.69 | 1.19 | 0.33 | 1, 17 | 0.571 |  |  |  |  |  |
|  | Date |  | 8.01 | 9.21 | 0.76 | 1, 17 | 0.397 |  |  |  |  |  |
|  | Brood size |  | -0.97 | 12.72 | 0.01 | 1, 17 | 0.940 |  |  |  |  |  |

**Table 3 Appendix**Full results of the saturated and reduced statistical models analysing response of females to researchers and breath rate in male and female scops owls in relation to coloration. Significant terms are depicted in bold

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | **Males** | | | | | | | | | | | **Females** | | | | | | | | | |
| **Satured model** | | | | | | **Reduced model** | | | | | **Satured model** | | | | | **Reduced model** | | | | |
| **Dependent variable** | **Explanatory variable** |  | ***β*** | **SE** | **Statistic** | **df** | ***P*** | ***β*** | | **SE** | **Statistic** | **df** | ***P*** | ***β*** | **SE** | **Statistic** | **df** | ***P*** | ***β*** | **SE** | **Statistic** | **df** | ***P*** |
| Response to researchers† | **Colour\*Hour** |  | - | - | - | - | - | - | | - | - | - | - | 0.00 | 0.00 | ***χ 2*=3.34** | **1** | **0.018** |  |  |  |  |  |
|  | Colour |  | - | - | - | - | - | - | | - | - | - | - | -0.72 | 0.40 | *χ 2*=3.58 | 1 | 0.042 |  |  |  |  |  |
|  | Hour |  | - | - | - | - | - | - | | - | - | - | - | 0.01 | 0.01 | *χ 2*=2.32 | 1 | 0.180 |  |  |  |  |  |
|  | Year | 2013 | - | - | - | - | - | - | | - | - | - | - | 0.05 | 0.04 | *χ 2*=8.91 | 5 | 0.132 |  |  |  |  |  |
|  |  | 2014 | - | - | - | - | - | - | | - | - | - | - | 1.65 | 1.42 |  |  |  |  |  |  |  |  |
|  |  | 2015 | - | - | - | - | - | - | | - | - | - | - | 3.23 | 1.45 |  |  |  |  |  |  |  |  |
|  |  | 2016 | - | - | - | - | - | - | | - | - | - | - | 1.01 | 1.34 |  |  |  |  |  |  |  |  |
|  |  | 2017 | - | - | - | - | - | - | | - | - | - | - | 0.27 | 1.11 |  |  |  |  |  |  |  |  |
|  |  | 2018 | - | - | - | - | - | - | | - | - | - | - | 2.18 | 1.17 |  |  |  |  |  |  |  |  |
|  | Date |  | - | - | - | - | - | - | | - | - | - | - | 0.00 | 0.00 | *χ 2*=1.85 | 1 | 0.183 | 0.03 | 0.02 | *χ 2*=1.76 | 1 | 0.185 |
|  | Brood size |  | - | - | - | - | - | - | | - | - | - | - | 0.30 | 0.33 | *χ 2*=0.87 | 1 | 0.290 |  |  |  |  |  |
| Breath rate | Colour\*Year | 2015 | -0.87 | 1.45 | *F*=0.52 | 3, 21 | 0.673 |  | |  |  |  |  | 1.30 | 1.55 | *F* =0.78 | 3, 24 | 0.515 |  |  |  |  |  |
|  |  | 2016 | 1.14 | 1.64 |  |  |  |  | |  |  |  |  | -2.23 | 1.95 |  |  |  |  |  |  |  |  |
|  |  | 2017 | -0.75 | 0.97 |  |  |  |  | |  |  |  |  | 0.55 | 0.96 |  |  |  |  |  |  |  |  |
|  |  | 2018 | 0.29 | 0.97 |  |  |  |  | |  |  |  |  | -0.15 | 1.44 |  |  |  |  |  |  |  |  |
|  | Colour |  | 0.00 | 0.00 | *F*=0.01 | 1, 21 | 0.942 |  | |  |  |  |  | 0.00 | 0.00 | *F*=0.03 | 1, 24 | 0.855 |  |  |  |  |  |
|  | Year | 2015 | 5.01 | 11.14 | *F*=0.36 | 3, 21 | 0.782 |  | |  |  |  |  | -7.86 | 13.11 | *F*=0.57 | 3, 24 | 0.642 |  |  |  |  |  |
|  |  | 2016 | -8.48 | 11.68 |  |  |  |  | |  |  |  |  | 10.64 | 14.38 |  |  |  |  |  |  |  |  |
|  |  | 2017 | 2.45 | 7.90 |  |  |  |  | |  |  |  |  | -3.89 | 9.47 |  |  |  |  |  |  |  |  |
|  |  | 2018 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  | 0.00 | 0.00 |  |  |  |  |  |  |  |  |
|  | Partner colour |  | 0.53 | 0.53 | *F*=1.00 | 1, 21 | 0.329 |  | |  |  |  |  | -0.44 | 0.70 | *F*=0.40 | 1, 24 | 0.534 |  |  |  |  |  |
|  | Date |  | 0.02 | 0.06 | *F*=0.15 | 1, 21 | 0.702 |  | |  |  |  |  | 0.00 | 0.11 | *F*=0.00 | 1, 24 | 0.998 |  |  |  |  |  |
|  | Brood size |  | -0.82 | 0.76 | F=1.19 | 1, 21 | 0.288 | -1.06 | | 0.62 | F=2.95 | 1, 33 | 0.095 | -0.74 | 1.02 | *F*=0.53 | 1, 24 | 0.472 | -0.57 | 0.46 | *F*=1.48 | 1, 49 | 0.229 |

†The triple interactive effect Year\*Colour\*Hour and the effect of the morph of the partner could not be assessed due to low sample size.

**Table 4 Appendix**Full results of the saturated and reduced statistical models analysing parental care (i.e. latency and feeding rate) in male and female scops owls in relation to plumage coloration. Significant terms are depicted in bold

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | **Males** | | | | | | | | | | **Females** | | | | | | | | | |
|  |  |  |  | **Satured model** | | | | | **Reduced model** | | | | | **Satured model** | | | | | **Reduced model** | | | | |
| **Dependent variable** | **Explanatory variable** | |  | ***β*** | **SE** | **Statistic** | **df** | ***P*** | ***β*** | **SE** | **Statistic** | **df** | ***P*** | ***β*** | **SE** | **Statistic** | **df** | ***P*** | ***β*** | **SE** | **Statistic** | **df** | ***P*** |
|  | **Colour score** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Latency | Colour\*Year | 2013 |  | -0.02 | 0.54 | *F* =1.26 | 5, 46 | 0.296 |  |  |  |  |  | - | - | *F*= 0.12 | 5, 23 | 0.974 |  |  |  |  |  |
|  |  | 2014 |  | -0.20 | 0.30 |  |  |  |  |  |  |  |  | 0.09 | 0.20 |  |  |  |  |  |  |  |  |
|  |  | 2015 |  | -0.04 | 0.18 |  |  |  |  |  |  |  |  | 0.21 | 0.28 |  |  |  |  |  |  |  |  |
|  |  | 2016 |  | 0.10 | 0.29 |  |  |  |  |  |  |  |  | 0.04 | 0.25 |  |  |  |  |  |  |  |  |
|  |  | 2017 |  | 0.17 | 0.21 |  |  |  |  |  |  |  |  | 0.09 | 0.24 |  |  |  |  |  |  |  |  |
|  |  | 2018 |  | 0.44 | 0.15 |  |  |  |  |  |  |  |  | 0.01 | 0.17 |  |  |  |  |  |  |  |  |
|  | Colour |  |  | 0.00 | 0.00 | *F* = 0.39 | 1, 46 | 0.535 | 0.19 | 0.08 | ***F* = 6.15** | **1, 60** | **0.016** | 0.00 | 0.00 | *F*= 0.57 | 1, 23 | 0.457 |  |  |  |  |  |
|  | Year | 2013 |  | 4.14 | 3.74 | *F* = 1.46 | 5, 46 | 0.222 |  |  |  |  |  | - | - | *F*= 0.07 | 5, 23 | 0.991 |  |  |  |  |  |
|  |  | 2014 |  | 4.46 | 2.20 |  |  |  |  |  |  |  |  | -0.11 | 1.73 |  |  |  |  |  |  |  |  |
|  |  | 2015 |  | 3.05 | 1.41 |  |  |  |  |  |  |  |  | -0.62 | 2.18 |  |  |  |  |  |  |  |  |
|  |  | 2016 |  | 2.14 | 1.82 |  |  |  |  |  |  |  |  | 0.52 | 2.02 |  |  |  |  |  |  |  |  |
|  |  | 2017 |  | 1.56 | 1.60 |  |  |  |  |  |  |  |  | 0.22 | 1.73 |  |  |  |  |  |  |  |  |
|  |  | 2018 |  | 0.00 | 0.00 |  |  |  |  |  |  |  |  | 0.00 | 0.00 |  |  |  |  |  |  |  |  |
|  | Brood size |  |  | -0.21 | 0.15 | *F* = 2.11 | 1, 46 | 0.153 | -0.33 | 0.12 | ***F* = 7.45** | **1, 60** | **0.008** | 0.11 | 0.20 | *F*= 0.32 | 1, 23 | 0.577 |  |  |  |  |  |
|  | Partner colour |  |  | 0.04 | 0.08 | *F* = 0.31 | 1, 46 | 0.581 |  |  |  |  |  | 0.10 | 0.12 | *F*= 0.70 | 1, 23 | 0.412 |  |  |  |  |  |
|  | **Date** |  |  | 0.02 | 0.02 | *F* =1.71 | 1, 46 | 0.198 |  |  |  |  |  | 0.05 | 0.02 | *F*= 4.87 | 1, 23 | 0.038 | 0.04 | 0.01 | ***F*= 7.55** | **1, 37** | **0.009** |
|  | Hour |  |  | 0.00 | 0.00 | *F* = 0.05 | 1, 46 | 0.820 |  |  |  |  |  | -0.01 | 0.00 | *F*= 2.20 | 1, 23 | 0.151 |  |  |  |  |  |
|  | Record duration |  |  | -0.02 | 0.02 | *F* = 1.37 | 1, 46 | 0.247 |  |  |  |  |  | 0.01 | 0.02 | *F*= 0.44 | 1, 23 | 0.514 |  |  |  |  |  |
|  | **Greyish vs Reddish** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Latency | Colour\*Year | 2013 | Greyish | -0.23 | 1.49 | *F* = 0.19 | 4, 22 | 0.940 |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  |  | 2013 | Reddish | - | - |  |  |  |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  |  | 2014 | Greyish | 0.70 | 1.59 |  |  |  |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  |  | 2014 | Reddish | 0.47 | 1.23 |  |  |  |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  |  | 2015 | Greyish | 0.43 | 1.22 |  |  |  |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  |  | 2015 | Reddish | 0.52 | 1.17 |  |  |  |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  |  | 2016 | Greyish | 0.54 | 1.25 |  |  |  |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  |  | 2016 | Reddish | 1.24 | 1.58 |  |  |  |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  |  | 2017 | Greyish | -0.21 | 1.13 |  |  |  |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  |  | 2017 | Reddish | 0.44 | 1.18 |  |  |  |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  |  | 2018 | Greyish | -0.89 | 1.11 |  |  |  |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  |  | 2018 | Reddish | 0.00 | 0.00 |  |  |  |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  | Colour | Greyish |  | 0.00 | 0.00 | *F*= 0.80 | 1, 22 | 0.380 | -0.70 | 0.33 | ***F*= 4.60** | **1, 35** | **0.039** | - | - |  |  |  |  |  |  |  |  |
|  |  | Reddish |  | 0.00 | 0.00 |  |  |  | 0.00 | 0.00 |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  | Year | 2013 |  | 0.00 | 0.00 | *F*= 0.43 | 5, 22 | 0.824 |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  |  | 2014 |  | 0.00 | 0.00 |  |  |  |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  |  | 2015 |  | 0.00 | 0.00 |  |  |  |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  |  | 2016 |  | 0.00 | 0.00 |  |  |  |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  |  | 2017 |  | 0.00 | 0.00 |  |  |  |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  |  | 2018 |  | 0.00 | 0.00 |  |  |  |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  | Brood size |  |  | -0.49 | 0.24 | *F*= 3.09 | 1, 22 | 0.093 | -0.56 | 0.16 | ***F*= 11.64** | **1, 35** | **0.002** | - | - |  |  |  |  |  |  |  |  |
|  | Partner colour | Greyish |  | 0.47 | 0.64 | *F*= 0.54 | 1, 22 | 0.469 |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  |  | Reddish |  |  |  |  |  |  |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  | **Date** |  |  | 0.00 | 0.03 | *F*= 0.02 | 1, 22 | 0.884 |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  | Hour |  |  | 0.00 | 0.01 | *F*= 0.04 | 1, 22 | 0.843 |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
|  | Record duration |  |  | 0.00 | 0.03 | *F*= 0.02 | 1, 22 | 0.887 |  |  |  |  |  | - | - |  |  |  |  |  |  |  |  |
| Feeding rate | Colour\*Year | 2013 |  | 0.13 | 0.40 | *F*= 0.51 | 5, 49 | 0.767 |  |  |  |  |  | 0.19 | 0.33 | *F*= 0.31 | 5, 49 | 0.907 |  |  |  |  |  |
|  |  | 2014 |  | 0.11 | 0.22 |  |  |  |  |  |  |  |  | -0.05 | 0.12 |  |  |  |  |  |  |  |  |
|  |  | 2015 |  | -0.08 | 0.12 |  |  |  |  |  |  |  |  | -0.16 | 0.16 |  |  |  |  |  |  |  |  |
|  |  | 2016 |  | 0.04 | 0.19 |  |  |  |  |  |  |  |  | -0.07 | 0.11 |  |  |  |  |  |  |  |  |
|  |  | 2017 |  | -0.20 | 0.15 |  |  |  |  |  |  |  |  | -0.09 | 0.11 |  |  |  |  |  |  |  |  |
|  |  | 2018 |  | 0.07 | 0.11 |  |  |  |  |  |  |  |  | 0.02 | 0.10 |  |  |  |  |  |  |  |  |
|  | Colour |  |  | 0.00 | 0.00 | *F*= 0.02 | 1, 49 | 0.900 |  |  |  |  |  | 0.00 | 0.00 | *F*= 0.16 | 1, 49 | 0.688 |  |  |  |  |  |
|  | Year | 2013 |  | -1.12 | 2.79 | *F*= 0.49 | 5, 49 | 0.781 |  |  |  |  |  | -1.05 | 2.53 | *F*= 0.24 | 5, 49 | 0.942 |  |  |  |  |  |
|  |  | 2014 |  | -0.57 | 1.65 |  |  |  |  |  |  |  |  | 0.41 | 1.00 |  |  |  |  |  |  |  |  |
|  |  | 2015 |  | 0.58 | 1.02 |  |  |  |  |  |  |  |  | 0.97 | 1.33 |  |  |  |  |  |  |  |  |
|  |  | 2016 |  | -0.14 | 1.18 |  |  |  |  |  |  |  |  | 0.41 | 1.02 |  |  |  |  |  |  |  |  |
|  |  | 2017 |  | 1.34 | 1.17 |  |  |  |  |  |  |  |  | 0.75 | 0.89 |  |  |  |  |  |  |  |  |
|  |  | 2018 |  | 0.00 | 0.00 |  |  |  |  |  |  |  |  | 0.00 | 0.00 |  |  |  |  |  |  |  |  |
|  | **Brood size** |  |  | 0.21 | 0.10 | *F*= 3.98 | 1, 49 | 0.052 | 0.25 | 0.08 | ***F*= 9.38** | **1, 66** | **0.003** | 0.10 | 0.10 | *F*= 1.09 | 1, 49 | 0.303 |  |  |  |  |  |
|  | Partner colour |  |  | -0.01 | 0.06 | *F*= 0.05 | 1, 49 | 0.833 |  |  |  |  |  | 0.00 | 0.06 | *F*= 0.00 | 1, 49 | 0.954 |  |  |  |  |  |
|  | Date |  |  | -0.02 | 0.01 | *F*= 3.11 | 1, 49 | 0.084 |  |  |  |  |  | 0.01 | 0.01 | *F*= 0.79 | 1, 49 | 0.377 |  |  |  |  |  |
|  | **Hour** |  |  | 0.00 | 0.00 | *F*= 2.60 | 1, 49 | 0.113 | -0.01 | 0.00 | ***F*= 98.26** | **1, 66** | **0.005** | 0.00 | 0.00 | *F*= 0.02 | 1, 49 | 0.900 |  |  |  |  |  |
|  | Record duration |  |  | 0.01 | 0.01 | *F*= 0.89 | 1, 49 | 0.351 |  |  |  |  |  | -0.01 | 0.01 | *F*= 0.97 | 1, 49 | 0.330 | -0.01 | 0.00 | ***F* = 4.72** | **1, 67** | **0.033** |

**Table 5 Appendix**Full results of the saturated and reduced statistical models analysing CORT levels in blood for females and CORT in feathers for both sexes of scops owls in relation to plumage coloration. Significant terms are depicted in bold

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Females blood stress-induced CORT** | | | | **Satured models** | | | | | | **Reduced model** | | | | |
| **Explanatory variables** |  |  |  | ***β*** | **SE** | ***F*** | **Df** | ***P*** | ***β*** | | **SE** | ***F*** | **df** | ***P*** |
| Colour\*Year |  |  | 2013 | 2.84 | 4.22 | 0.17 | 2, 9 | 0.844 |  | |  |  |  |  |
|  |  |  | 2014 | 3.59 | 5.08 |  |  |  |  | |  |  |  |  |
|  |  |  | 2015 | 6.78 | 5.97 |  |  |  |  | |  |  |  |  |
| Colour\*Hour |  |  |  | -0.01 | 0.01 | 0.98 | 1, 9 | 0.349 |  | |  |  |  |  |
| Colour |  |  |  | 0.00 | 0.00 | 1.41 | 1, 9 | 0.265 |  | |  |  |  |  |
| **Year** |  |  | 2013 | 24.32 | 44.30 | 0.19 | 2, 9 | 0.829 | 3.36 | | 4.76 | **3.93** | **2, 25** | **0.033** |
|  |  |  | 2014 | 25.48 | 44.17 |  |  |  | 10.81 | | 4.12 |  |  |  |
|  |  |  | 2015 | 0.00 | 0.00 |  |  |  | 0.00 | | 0.00 |  |  |  |
| Date |  |  |  | 0.25 | 0.34 | 0.55 | 1, 9 | 0.478 |  | |  |  |  |  |
| Hour |  |  |  | 0.09 | 0.09 | 0.95 | 1, 9 | 0.354 |  | |  |  |  |  |
| **CORT in feathers** |  |  |  |  |  |  |  |  |  | |  |  |  |  |
|  | **Colour score** | |  |  |  |  |  |  |  | |  |  |  |  |
| Colour\*Sex\*Year |  | Female | 2012 | 0.00 | 0.00 | 0.26 | 2, 53 | 0.769 |  | |  |  |  |  |
|  |  | Male | 2012 | 0.00 | 0.01 |  |  |  |  | |  |  |  |  |
|  |  | Female | 2013 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
|  |  | Male | 2013 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
|  |  | Female | 2014 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
|  |  | Male | 2014 | -0.01 | 0.00 |  |  |  |  | |  |  |  |  |
|  |  | Female | 2015 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
|  |  | Male | 2015 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
| **Colour\*Sex** |  | Female |  | 0.00 | 0.00 | **6.64** | **1, 53** | **0.013** | 0.00 | | 0.00 | **8.27** | **1, 64** | **0.006** |
|  |  | Male |  | 0.00 | 0.00 |  |  |  | -0.01 | | 0.00 |  |  |  |
| Colour\*Year |  |  | 2012 | 0.00 | 0.00 | 0.37 | 3, 53 | 0.772 |  | |  |  |  |  |
|  |  |  | 2013 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
|  |  |  | 2014 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
|  |  |  | 2015 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
| Sex\*Year |  | Female | 2012 | -0.01 | 0.03 | 0.31 | 2, 53 | 0.735 |  | |  |  |  |  |
|  |  | Male | 2012 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
|  |  | Female | 2013 | -0.03 | 0.03 |  |  |  |  | |  |  |  |  |
|  |  | Male | 2013 | -0.01 | 0.03 |  |  |  |  | |  |  |  |  |
|  |  | Female | 2014 | -0.04 | 0.03 |  |  |  |  | |  |  |  |  |
|  |  | Male | 2014 | 0.00 | 0.03 |  |  |  |  | |  |  |  |  |
|  |  | Female | 2015 | -0.06 | 0.03 |  |  |  |  | |  |  |  |  |
|  |  | Male | 2015 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
| Colour |  |  |  | 0.00 | 0.00 | 1.08 | 1, 53 | 0.304 | 0.00 | | 0.00 | 2.04 | 1, 64 | 0.158 |
| Sex |  | Female |  | 0.00 | 0.00 | **5.33** | **1, 53** | **0.025** | -0.04 | | 0.02 | **6.24** | **1, 64** | **0.015** |
|  |  | Male |  | 0.00 | 0.00 |  |  |  | 0.00 | | 0.00 |  |  |  |
| Year |  |  | 2012 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
|  |  |  | 2013 | 0.00 | 0.00 | 0.55 | 3, 53 | 0.651 |  | |  |  |  |  |
|  |  |  | 2014 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
|  |  |  | 2015 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
| **CORT in feathers** |  |  |  |  |  |  |  |  |  | |  |  |  |  |
|  | **Greyish vs Reddish** | | |  |  |  |  |  |  | |  |  |  |  |
| Colour\*Sex\*Year | Greyish | Female | 2012 | 0.02 | 0.01 | 0.01 | 2, 33 | 0.988 |  | |  |  |  |  |
|  | Greyish | Male | 2012 | 0.04 | 0.02 |  |  |  |  | |  |  |  |  |
|  | Greyish | Female | 2013 | 0.01 | 0.01 |  |  |  |  | |  |  |  |  |
|  | Greyish | Male | 2013 | 0.02 | 0.01 |  |  |  |  | |  |  |  |  |
|  | Greyish | Female | 2014 | 0.02 | 0.01 |  |  |  |  | |  |  |  |  |
|  | Greyish | Male | 2014 | 0.02 | 0.01 |  |  |  |  | |  |  |  |  |
|  | Greyish | Female | 2015 | -0.01 | 0.01 |  |  |  |  | |  |  |  |  |
|  | Greyish | Male | 2015 | 0.01 | 0.01 |  |  |  |  | |  |  |  |  |
|  | Reddish | Female | 2012 | 0.02 | 0.01 |  |  |  |  | |  |  |  |  |
|  | Reddish | Female | 2013 | 0.02 | 0.01 |  |  |  |  | |  |  |  |  |
|  | Reddish | Male | 2013 | -0.01 | 0.02 |  |  |  |  | |  |  |  |  |
|  | Reddish | Female | 2014 | 0.02 | 0.01 |  |  |  |  | |  |  |  |  |
|  | Reddish | Male | 2014 | 0.00 | 0.01 |  |  |  |  | |  |  |  |  |
|  | Reddish | Female | 2015 | 0.02 | 0.01 |  |  |  |  | |  |  |  |  |
|  | Reddish | Male | 2015 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
| **Colour\*Sex** | Greyish | Female |  | 0.00 | 0.00 | **9.03** | **1, 33** | **0.005** | 0.01 | | 0.01 | **8.17** | **1, 44** | **0.007** |
|  | Greyish | Male |  | 0.00 | 0.00 |  |  |  | 0.02 | | 0.01 |  |  |  |
|  | Reddish | Female |  | 0.00 | 0.00 |  |  |  | 0.02 | | 0.01 |  |  |  |
|  | Reddish | Male |  | 0.00 | 0.00 |  |  |  | 0.00 | | 0.00 |  |  |  |
| Colour\*Year | Greyish |  | 2012 | 0.00 | 0.00 | 1.44 | 3, 33 | 0.248 |  | |  |  |  |  |
|  | Greyish |  | 2013 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
|  | Greyish |  | 2014 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
|  | Greyish |  | 2015 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
|  | Reddish |  | 2012 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
|  | Reddish |  | 2013 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
|  | Reddish |  | 2014 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
|  | Reddish |  | 2015 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
| Sex\*Year |  | Female | 2012 | 0.00 | 0.02 | 0.61 | 3, 33 | 0.612 |  | |  |  |  |  |
|  |  | Male | 2012 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
|  |  | Female | 2013 | 0.00 | 0.02 |  |  |  |  | |  |  |  |  |
|  |  | Male | 2013 | 0.00 | 0.02 |  |  |  |  | |  |  |  |  |
|  |  | Female | 2014 | 0.00 | 0.01 |  |  |  |  | |  |  |  |  |
|  |  | Male | 2014 | 0.00 | 0.02 |  |  |  |  | |  |  |  |  |
|  |  | Female | 2015 | 0.00 | 0.02 |  |  |  |  | |  |  |  |  |
|  |  | Male | 2015 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
| Colour | Greyish |  |  | 0.00 | 0.00 | 1.32 | 1, 33 | 0.258 | 0.00 | | 0.00 | 1.89 | 1, 44 | 0.177 |
|  | Reddish |  |  | 0.00 | 0.00 |  |  |  | 0.00 | | 0.00 |  |  |  |
| Year |  |  | 2012 | 0.00 | 0.00 | 1.95 | 3, 33 | 0.140 |  | |  |  |  |  |
|  |  |  | 2013 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
|  |  |  | 2014 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
|  |  |  | 2015 | 0.00 | 0.00 |  |  |  |  | |  |  |  |  |
| Sex |  | Female |  | 0.00 | 0.00 | 0.75 | 1, 33 | 0.393 | 0.00 | | 0.00 | 3.19 | 1, 44 | 0.081 |
|  |  | Male |  | 0.00 | 0.00 |  |  |  | 0.00 | | 0.00 |  |  |  |