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## Supplementary material

**Table S1.** The information used to determine the ponderation factor in the calculation of the final parental investment score corresponding to each breeding pair of *S.flaveola*. With respect to the relative confidence in the measurement, *** = highly reliable, ** = reliable, * = less reliable. The relative cost of parental investment was determined using the literature.

| Aspect of Parental Care | Variable (code) | Number of participating adults | Relative cost of parental investment | Relative confidence in measurement | Ponderation factor | References |
|---|---|---|---|---|---|---|
| **Egg Quality** | eggVol | 1 | Very high | *** | 0.1333333 | (Royle et al. 2012) |
| **Nest Construction** | nestVol | 2 | Medium | ** | 0.1000000 | (Collias 1986, Muth and Healy 2011) |
| **Incubation** | incHour | 1 | Very high | *** | 0.1333333 | (Lack 1954, Williams 1996, Conway and Martin 2000) |
| | incPeriod | 1 | High | ** | 0.1000000 | |
| **Brooding** | broodTime | 1 | Medium | ** | 0.0833333 | MacGregor & Cockburn 2002; Low et al 2011 |
| **Feeding Visits** | feedVis | 2 | High | *** | 0.1333333 | (Lack 1954, Ricklefs 1968, Martin 1987) |
| | regurgEvent | 2 | High | *** | 0.1333333 | |
| **Male Vigilance** | MaleAccomp | 1 | Low | * | 0.0500000 | (Harrison et al. 2009) |
| | maleGuard | 1 | Low | * | 0.0500000 | |
| **Nest Defense** | nestDef | 2 | Low | ** | 0.0833333 | (Barash 1975, Dugatkin and Godin 1992, Martin et al. 2000) |
| | | | | **TOTAL** | 1 | |

*The references cited were consulted to determine the relative cost of parental investment, from Very high to Low.*

**Table S2.** Determination of the ponderation factors for each variable.

| Variable (code) | Number of adults | Value - adults | Relative cost | Value - cost | Confidence | Value - confidence | TOTAL Value |
|---|---|---|---|---|---|---|---|
| eggVol | 1 | 1 | Very high | 4 | *** | 3 | 8 |
| nestVol | 2 | 1 | Medium | 3 | ** | 2 | 6 |
| incHour | 1 | 2 | Very high | 4 | *** | 3 | 8 |
| incPeriod | 1 | 1 | High | 3 | ** | 2 | 6 |
| broodTime | 1 | 1 | Medium | 2 | ** | 2 | 5 |
| feedVis | 2 | 2 | High | 3 | *** | 3 | 8 |
| regurgEvent | 2 | 2 | High | 3 | *** | 3 | 8 |
| maleAccomp | 1 | 1 | Low | 1 | * | 1 | 3 |
| maleGuard | 1 | 1 | Low | 1 | * | 1 | 3 |
| nestDef | 2 | 2 | Low | 1 | ** | 2 | 5 |
| | | | | | | **TOTAL** | 60 |

Therefore the ponderation factor for the variable EVol = (1/60)*8

= 0.1333333

**Table S3.** Example calculation of how to calculate the final parental investment score, using the data for Nest 1.

| Variable | Measurement value on its respective scale | Z score | Z score * Ponderation factor |
|---|---|---|---|
| eggVol | 1750.00 | -1.96 | -0.26 |
| nestVol | 826.56 | -0.30 | -0.03 |
| incHour | 32.42 | 0.08 | 0.01 |
| incPeriod | 15.00 | 0.96 | 0.10 |
| maleAccomp | 0.46 | -0.22 | -0.01 |
| maleGuard | 0.05 | -1.02 | -0.05 |
| broodTime | 4.67 | -0.74 | -0.06 |
| feedVis | 1.52 | -1.13 | -0.15 |
| regurgEvent | 8 | -0.96 | -0.13 |
| nestDef* | 2 | -0.40 | -0.03 |
| | | **TOTAL** | **-0.61** |

*The variable nestDef is a categorical variable. To include this variable in the calculation of the final parental investment score, each response category was assigned a numerical value. The categories, Highly Reactive (HR) and Moderately Reactive (MR) were divided into two, depending upon the number of adults which responded. Therefore, Non-reactive = 0, MR (one adult) = 1, MR (two adults) = 2, HR (one adult) = 3, HR (two adults = 4).

**Table S4.** The generalized linear models used to compare the relationship between the number of incubation visits per hour and the egg parameters: Mass, Volume and Surface Area**.** AIC Model 1: 18.226, Model 2: 19.209 and Model 3: 17.676. Gamma distribution, degrees of freedom = 19.

| | | Response Variable – incVis | | | |
|---|---|---|---|---|---|
| **Egg Model** | **Variable** | **Estimate** | **SE** | **t** | **p** |
| 1. Mass | Mass | 0.397 | 0.170 | 2.329 | 0.033 * |
| | Clutch | 0.059 | 0.044 | 1.330 | 0.202 |
| | maleGuard | -0.094 | 0.055 | -1.709 | 0.107 |
| 2. Volume | eggVol | 0.0002 | 0.0001 | 2.099 | 0.052 |
| | Clutch | 0.0538 | 0.0451 | 1.193 | 0.250 |
| | maleGuard | -0.0699 | 0.0523 | -1.336 | 0.200 |
| 3. Surface Area | eggArea | 0.001 | 0.0004 | 2.424 | 0.027 * |
| | Clutch | 0.050 | 0.0441 | 1.130 | 0.275 |
| | maleGuard | -0.075 | 0.0506 | -1.490 | 0.156 |

**Table S5.** Results from the best-fit GLMs for the response variables: RSuccess and $T_{hwp}$. The i) AIC, ii) standard deviation and iii) degrees of freedom for the final models were: RSuccess: i) 75.614, ii) 7.454, iii) 17. $T_{hwp}$: i) 63.903, ii) 0.113, iii) 19.

| $Y_i$ | Variable | Estimate | SE | t | p | |
|---|---|---|---|---|---|---|
| **RSuccess** | *Initial Model* | | | | | |
| | incVis | -0.059 | 0.181 | -0.325 | 0.745 | |
| | Score | -0.125 | 0.518 | -0.242 | 0.809 | |
| | nestDef | 0.046 | 0.090 | 0.508 | 0.611 | |
| | regurgEvent | 0.028 | 0.057 | 0.494 | 0.621 | |
| | *Final Model* | | | | | |
| | incVis | -0.044 | 0.169 | -0.258 | 0.796 | |
| | nestDef | 0.045 | 0.090 | 0.505 | 0.614 | |
| | regurgEvent | 0.020 | 0.044 | 0.442 | 0.658 | |
| **$T_{hwp}$** | *Initial Model* | | | | | |
| | Score | -0.010 | 0.012 | -0.894 | 0.384 | |
| | nestDef | -0.004 | 0.002 | -2.033 | 0.059 | |
| | regurgEvent | 0.001 | 0.001 | 1.041 | 0.313 | |
| | incVis | 0.002 | 0.004 | 0.438 | 0.667 | |
| | *Final Model* | | | | | |
| | Score | -0.005 | 0.008 | -0.659 | 0.518 | |
| | nestDef | -0.004 | 0.002 | -2.210 | 0.040 | * |

**Supplementary Bibliography:**


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