Table S1. Raw data of the proportion of time spent displaying and the proportion of display-time spent dewlapping for tested male *Anolis oculatus* and *A. cristatellus* in allopatry and sympatry (Calibishie, Dominica 2016). All displays were categorized as either dewlap or push-up displays; our metric (“proportion\_display\_time\_spent\_dewlapping“) was the proportion of display time spent in dewlap displays, which is a measure of the relative time spent in the two types of displays.

|  |  |  |  |
| --- | --- | --- | --- |
| species | context | proportion\_time\_spent\_displaying | proportion\_display\_time\_spent\_dewlapping |
| A.cristatellus | allopatry | 0.089 | 0.907 |
| A.cristatellus | allopatry | 0.023 | 1.000 |
| A.cristatellus | allopatry | 0.035 | 1.000 |
| A.cristatellus | allopatry | 0.065 | 0.462 |
| A.cristatellus | allopatry | 0.023 | 0.225 |
| A.cristatellus | allopatry | 0.081 | 0.687 |
| A.cristatellus | allopatry | 0.112 | 0.000 |
| A.cristatellus | allopatry | 0.063 | 0.908 |
| A.cristatellus | allopatry | 0.225 | 0.953 |
| A.cristatellus | allopatry | 0.073 | 0.644 |
| A.cristatellus | allopatry | 0.037 | 1.000 |
| A.cristatellus | allopatry | 0.115 | 0.000 |
| A.cristatellus | allopatry | 0.093 | 0.649 |
| A.cristatellus | allopatry | 0.056 | 0.423 |
| A.cristatellus | allopatry | 0.051 | 0.640 |
| A.cristatellus | allopatry | 0.091 | 0.828 |
| A.cristatellus | allopatry | 0.035 | 0.933 |
| A.cristatellus | allopatry | 0.077 | 0.750 |
| A.cristatellus | allopatry | 0.088 | 0.703 |
| A.cristatellus | allopatry | 0.034 | 1.000 |
| A.cristatellus | allopatry | 0.079 | 0.242 |
| A.cristatellus | allopatry | 0.036 | 0.485 |
| A.cristatellus | allopatry | 0.099 | 0.182 |
| A.cristatellus | sympatry | 0.073 | 0.354 |
| A.cristatellus | sympatry | 0.050 | 0.000 |
| A.cristatellus | sympatry | 0.053 | 0.000 |
| A.cristatellus | sympatry | 0.076 | 0.257 |
| A.cristatellus | sympatry | 0.051 | 0.545 |
| A.cristatellus | sympatry | 0.023 | 0.000 |
| A.cristatellus | sympatry | 0.066 | 1.000 |
| A.cristatellus | sympatry | 0.103 | 0.328 |
| A.cristatellus | sympatry | 0.033 | 0.000 |
| A.cristatellus | sympatry | 0.035 | 0.247 |
| A.cristatellus | sympatry | 0.021 | 0.471 |
| A.cristatellus | sympatry | 0.103 | 0.643 |
| A.cristatellus | sympatry | 0.105 | 1.000 |
| A.cristatellus | sympatry | 0.020 | 0.000 |
| A.cristatellus | sympatry | 0.031 | 0.000 |
| A.cristatellus | sympatry | 0.017 | 0.000 |
| A.cristatellus | sympatry | 0.071 | 0.742 |
| A.cristatellus | sympatry | 0.023 | 0.759 |
| A.cristatellus | sympatry | 0.052 | 0.271 |
| A.cristatellus | sympatry | 0.009 | 1.000 |
| A.cristatellus | sympatry | 0.010 | 0.000 |
| A.cristatellus | sympatry | 0.025 | 0.000 |
| A.cristatellus | sympatry | 0.032 | 0.000 |
| A.cristatellus | sympatry | 0.075 | 0.736 |
| A.cristatellus | sympatry | 0.021 | 1.000 |
| A.cristatellus | sympatry | 0.050 | 0.478 |
| A.cristatellus | sympatry | 0.144 | 1.000 |
| A.cristatellus | sympatry | 0.035 | 0.549 |
| A.cristatellus | sympatry | 0.066 | 0.582 |
| A.cristatellus | sympatry | 0.098 | 0.353 |
| A.oculatus | allopatry | 0.113 | 1.000 |
| A.oculatus | allopatry | 0.093 | 0.851 |
| A.oculatus | allopatry | 0.058 | 0.876 |
| A.oculatus | allopatry | 0.131 | 0.995 |
| A.oculatus | allopatry | 0.114 | 1.000 |
| A.oculatus | allopatry | 0.145 | 1.000 |
| A.oculatus | allopatry | 0.627 | 0.642 |
| A.oculatus | allopatry | 0.024 | 1.000 |
| A.oculatus | allopatry | 0.062 | 0.972 |
| A.oculatus | allopatry | 0.132 | 0.260 |
| A.oculatus | allopatry | 0.047 | 1.000 |
| A.oculatus | allopatry | 0.106 | 1.000 |
| A.oculatus | allopatry | 0.021 | 0.956 |
| A.oculatus | allopatry | 0.003 | 1.000 |
| A.oculatus | allopatry | 0.139 | 0.806 |
| A.oculatus | allopatry | 0.041 | 1.000 |
| A.oculatus | allopatry | 0.101 | 0.960 |
| A.oculatus | allopatry | 0.013 | 1.000 |
| A.oculatus | allopatry | 0.104 | 0.956 |
| A.oculatus | allopatry | 0.031 | 0.922 |
| A.oculatus | allopatry | 0.057 | 0.991 |
| A.oculatus | allopatry | 0.017 | 1.000 |
| A.oculatus | allopatry | 0.021 | 0.765 |
| A.oculatus | allopatry | 0.031 | 1.000 |
| A.oculatus | allopatry | 0.133 | 0.954 |
| A.oculatus | allopatry | 0.040 | 0.725 |
| A.oculatus | allopatry | 0.044 | 0.898 |
| A.oculatus | allopatry | 0.019 | 1.000 |
| A.oculatus | allopatry | 0.115 | 0.774 |
| A.oculatus | allopatry | 0.028 | 1.000 |
| A.oculatus | allopatry | 0.125 | 1.000 |
| A.oculatus | sympatry | 0.163 | 0.872 |
| A.oculatus | sympatry | 0.071 | 1.000 |
| A.oculatus | sympatry | 0.113 | 1.000 |
| A.oculatus | sympatry | 0.020 | 1.000 |
| A.oculatus | sympatry | 0.038 | 1.000 |
| A.oculatus | sympatry | 0.130 | 1.000 |
| A.oculatus | sympatry | 0.032 | 1.000 |
| A.oculatus | sympatry | 0.106 | 1.000 |
| A.oculatus | sympatry | 0.190 | 0.987 |
| A.oculatus | sympatry | 0.029 | 0.936 |
| A.oculatus | sympatry | 0.169 | 0.932 |
| A.oculatus | sympatry | 0.108 | 0.825 |
| A.oculatus | sympatry | 0.041 | 1.000 |
| A.oculatus | sympatry | 0.017 | 0.277 |
| A.oculatus | sympatry | 0.070 | 1.000 |
| A.oculatus | sympatry | 0.098 | 0.923 |
| A.oculatus | sympatry | 0.073 | 1.000 |
| A.oculatus | sympatry | 0.029 | 0.805 |
| A.oculatus | sympatry | 0.056 | 0.810 |
| A.oculatus | sympatry | 0.008 | 0.774 |
| A.oculatus | sympatry | 0.079 | 0.835 |
| A.oculatus | sympatry | 0.057 | 0.564 |
| A.oculatus | sympatry | 0.010 | 1.000 |
| A.oculatus | sympatry | 0.074 | 1.000 |
| A.oculatus | sympatry | 0.048 | 0.843 |
| A.oculatus | sympatry | 0.221 | 0.971 |
| A.oculatus | sympatry | 0.510 | 0.916 |
| A.oculatus | sympatry | 0.122 | 0.726 |
| A.oculatus | sympatry | 0.012 | 1.000 |
| A.oculatus | sympatry | 0.032 | 0.516 |
| A.oculatus | sympatry | 0.094 | 0.941 |
| A.oculatus | sympatry | 0.041 | 0.708 |
| A.oculatus | sympatry | 0.023 | 1.000 |
| A.oculatus | sympatry | 0.040 | 1.000 |
| A.oculatus | sympatry | 0.018 | 0.861 |
| A.oculatus | sympatry | 0.010 | 1.000 |
| A.oculatus | sympatry | 0.140 | 0.941 |
| A.oculatus | sympatry | 0.078 | 0.962 |

Table S2. Raw data of the canopy openness and the habitat openness for male *Anolis oculatus* and *A. cristatellus* in allopatry and sympatry (Calibishie, Dominica, 2016), according to the site of sampling. The canopy openness is the number of squares with more than 50% of visible sky, measured with a Ben Meadows spherical densitometer (convex model), from the perch where the lizard was initially observed. The habitat openness is the distance in cm to the closest perch available at the same horizontal plan than where the focal lizard was spotted.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| site | species | context | canopy\_openess | habitat\_openess |
| S2 | A.cristatellus | allopatry | 17 | 190 |
| S2 | A.cristatellus | allopatry | 4 | 10 |
| S2 | A.cristatellus | allopatry | 0 | 20 |
| S2 | A.cristatellus | allopatry | 0 | 15 |
| S2 | A.cristatellus | allopatry | 0 | 2 |
| S2 | A.cristatellus | allopatry | 3 | 45 |
| S2 | A.cristatellus | allopatry | 0 | 32 |
| S2 | A.cristatellus | allopatry | 15 | 62 |
| S2 | A.cristatellus | allopatry | 0 | 20 |
| S2 | A.cristatellus | allopatry | 0 | 37 |
| S2 | A.cristatellus | allopatry | 8 | 48 |
| S2 | A.cristatellus | allopatry | 5 | 30 |
| S2 | A.cristatellus | allopatry | 0 | 17 |
| S7 | A.cristatellus | allopatry | 0 | 10 |
| S7 | A.cristatellus | allopatry | 1 | 60 |
| S7 | A.cristatellus | allopatry | 24 | 7 |
| S7 | A.cristatellus | allopatry | 1 | 15 |
| S7 | A.cristatellus | allopatry | 3 | 24 |
| S7 | A.cristatellus | allopatry | 10 | 45 |
| S7 | A.cristatellus | allopatry | 2 | 110 |
| S7 | A.cristatellus | allopatry | 7 | 20 |
| S7 | A.cristatellus | allopatry | 7 | 33 |
| S7 | A.cristatellus | allopatry | 22 | 21 |
| S7 | A.cristatellus | allopatry | 5 | 9 |
| S7 | A.cristatellus | allopatry | 8 | 25 |
| S7 | A.cristatellus | allopatry | 4 | 20 |
| S7 | A.cristatellus | allopatry | 3 | 13 |
| S7 | A.cristatellus | allopatry | 3 | 10 |
| S7 | A.cristatellus | allopatry | 0 | 15 |
| S7 | A.cristatellus | allopatry | 4 | 29 |
| S7 | A.cristatellus | allopatry | 0 | 50 |
| S3 | A.cristatellus | sympatry | 1 | 15 |
| S3 | A.cristatellus | sympatry | 16 | 14 |
| S3 | A.cristatellus | sympatry | 4 | 20 |
| S3 | A.cristatellus | sympatry | 5 | 23 |
| S3 | A.cristatellus | sympatry | 13 | 7 |
| S3 | A.cristatellus | sympatry | 2 | 29 |
| S3 | A.cristatellus | sympatry | 23 | 30 |
| S3 | A.cristatellus | sympatry | 12 | 54 |
| S3 | A.cristatellus | sympatry | 3 | 180 |
| S3 | A.cristatellus | sympatry | 23 | 128 |
| S3 | A.cristatellus | sympatry | 2 | 18 |
| S3 | A.cristatellus | sympatry | 4 | 50 |
| S5 | A.cristatellus | sympatry | 3 | 70 |
| S5 | A.cristatellus | sympatry | 6 | 50 |
| S5 | A.cristatellus | sympatry | 1 | 38 |
| S5 | A.cristatellus | sympatry | 1 | 10 |
| S5 | A.cristatellus | sympatry | 17 | 20 |
| S5 | A.cristatellus | sympatry | 0 | 30 |
| S5 | A.cristatellus | sympatry | 0 | 34 |
| S5 | A.cristatellus | sympatry | 0 | 13 |
| S5 | A.cristatellus | sympatry | 2 | 18 |
| S5 | A.cristatellus | sympatry | 5 | 11 |
| S5 | A.cristatellus | sympatry | 1 | 34 |
| S5 | A.cristatellus | sympatry | 13 | 65 |
| S5 | A.cristatellus | sympatry | 4 | 20 |
| S5 | A.cristatellus | sympatry | 12 | 52 |
| S6 | A.cristatellus | sympatry | 3 | 44 |
| S6 | A.cristatellus | sympatry | 1 | 21 |
| S6 | A.cristatellus | sympatry | 0 | 85 |
| S6 | A.cristatellus | sympatry | 0 | 9 |
| S6 | A.cristatellus | sympatry | 0 | 54 |
| S6 | A.cristatellus | sympatry | 4 | 56 |
| S6 | A.cristatellus | sympatry | 19 | 143 |
| S6 | A.cristatellus | sympatry | 0 | 35 |
| S6 | A.cristatellus | sympatry | 13 | 35 |
| S6 | A.cristatellus | sympatry | 17 | 26 |
| S6 | A.cristatellus | sympatry | 8 | 110 |
| S6 | A.cristatellus | sympatry | 7 | 20 |
| S6 | A.cristatellus | sympatry | 1 | 83 |
| S6 | A.cristatellus | sympatry | 1 | 20 |
| S6 | A.cristatellus | sympatry | 6 | 40 |
| S6 | A.cristatellus | sympatry | 24 | 12 |
| S6 | A.cristatellus | sympatry | 9 | 83 |
| S6 | A.cristatellus | sympatry | 4 | 25 |
| S6 | A.cristatellus | sympatry | 17 | 40 |
| S6 | A.cristatellus | sympatry | 5 | 5 |
| S6 | A.cristatellus | sympatry | 19 | 120 |
| S9 | A.cristatellus | sympatry | 0 | 10 |
| S9 | A.cristatellus | sympatry | 3 | 97 |
| S9 | A.cristatellus | sympatry | 3 | 20 |
| S1 | A.oculatus | allopatry | 4 | 20 |
| S1 | A.oculatus | allopatry | 17 | 110 |
| S1 | A.oculatus | allopatry | 20 | 49 |
| S1 | A.oculatus | allopatry | 0 | 42 |
| S1 | A.oculatus | allopatry | 10 | 40 |
| S1 | A.oculatus | allopatry | 0 | 24 |
| S1 | A.oculatus | allopatry | 22 | 135 |
| S1 | A.oculatus | allopatry | 16 | 70 |
| S1 | A.oculatus | allopatry | 17 | 4 |
| S1 | A.oculatus | allopatry | 5 | 38 |
| S1 | A.oculatus | allopatry | 6 | 14 |
| S1 | A.oculatus | allopatry | 17 | 117 |
| S1 | A.oculatus | allopatry | 0 | 22 |
| S1 | A.oculatus | allopatry | 4 | 157 |
| S1 | A.oculatus | allopatry | 11 | 5 |
| S1 | A.oculatus | allopatry | 7 | 26 |
| S1 | A.oculatus | allopatry | 10 | 26 |
| S1 | A.oculatus | allopatry | 10 | 17 |
| S1 | A.oculatus | allopatry | 19 | 60 |
| S1 | A.oculatus | allopatry | 20 | 5 |
| S1 | A.oculatus | allopatry | 4 | 110 |
| S1 | A.oculatus | allopatry | 2 | 150 |
| S1 | A.oculatus | allopatry | 14 | 9 |
| S1 | A.oculatus | allopatry | 0 | 12 |
| S1 | A.oculatus | allopatry | 5 | 70 |
| S1 | A.oculatus | allopatry | 15 | 50 |
| S1 | A.oculatus | allopatry | 5 | 7 |
| S1 | A.oculatus | allopatry | 2 | 22 |
| S1 | A.oculatus | allopatry | 0 | 32 |
| S1 | A.oculatus | allopatry | 0 | 105 |
| S1 | A.oculatus | allopatry | 0 | 26 |
| S1 | A.oculatus | allopatry | 1 | 56 |
| S1 | A.oculatus | allopatry | 1 | 50 |
| S8 | A.oculatus | allopatry | 9 | 10 |
| S8 | A.oculatus | allopatry | 2 | 14 |
| S8 | A.oculatus | allopatry | 0 | 100 |
| S8 | A.oculatus | allopatry | 0 | 15 |
| S8 | A.oculatus | allopatry | 11 | 203 |
| S8 | A.oculatus | allopatry | 4 | 150 |
| S8 | A.oculatus | allopatry | 6 | 40 |
| S8 | A.oculatus | allopatry | 0 | 25 |
| S8 | A.oculatus | allopatry | 0 | 100 |
| S8 | A.oculatus | allopatry | 1 | 15 |
| S8 | A.oculatus | allopatry | 1 | 21 |
| S8 | A.oculatus | allopatry | 9 | 21 |
| S8 | A.oculatus | allopatry | 4 | 65 |
| S8 | A.oculatus | allopatry | 0 | 6 |
| S8 | A.oculatus | allopatry | 0 | 17 |
| S8 | A.oculatus | allopatry | 17 | 165 |
| S8 | A.oculatus | allopatry | 3 | 60 |
| S8 | A.oculatus | allopatry | 9 | 80 |
| S8 | A.oculatus | allopatry | 12 | 50 |
| S8 | A.oculatus | allopatry | 1 | 47 |
| S8 | A.oculatus | allopatry | 2 | 23 |
| S8 | A.oculatus | allopatry | 0 | 27 |
| S8 | A.oculatus | allopatry | 0 | 18 |
| S8 | A.oculatus | allopatry | 0 | 55 |
| S3 | A.oculatus | sympatry | 3 | 8 |
| S3 | A.oculatus | sympatry | 8 | 30 |
| S3 | A.oculatus | sympatry | 2 | 45 |
| S3 | A.oculatus | sympatry | 3 | 30 |
| S3 | A.oculatus | sympatry | 0 | 20 |
| S3 | A.oculatus | sympatry | 1 | 41 |
| S3 | A.oculatus | sympatry | 0 | 27 |
| S3 | A.oculatus | sympatry | 6 | 24 |
| S3 | A.oculatus | sympatry | NA | 160 |
| S3 | A.oculatus | sympatry | 10 | 140 |
| S3 | A.oculatus | sympatry | 20 | 196 |
| S3 | A.oculatus | sympatry | 0 | 40 |
| S3 | A.oculatus | sympatry | 0 | 18 |
| S3 | A.oculatus | sympatry | 1 | 50 |
| S4 | A.oculatus | allopatry | 19 | 84 |
| S4 | A.oculatus | allopatry | 7 | 40 |
| S4 | A.oculatus | allopatry | 0 | 13 |
| S4 | A.oculatus | allopatry | 21 | 35 |
| S4 | A.oculatus | allopatry | 19 | 19 |
| S4 | A.oculatus | allopatry | 2 | 16 |
| S4 | A.oculatus | allopatry | 18 | 250 |
| S4 | A.oculatus | allopatry | 7 | 21 |
| S4 | A.oculatus | allopatry | 0 | 49 |
| S4 | A.oculatus | allopatry | 8 | 198 |
| S4 | A.oculatus | allopatry | 3 | 47 |
| S4 | A.oculatus | allopatry | 6 | 227 |
| S4 | A.oculatus | allopatry | 1 | 35 |
| S4 | A.oculatus | allopatry | 19 | 143 |
| S4 | A.oculatus | allopatry | 3 | 29 |
| S4 | A.oculatus | allopatry | 2 | 8 |
| S4 | A.oculatus | allopatry | 4 | 230 |
| S4 | A.oculatus | allopatry | 3 | 240 |
| S5 | A.oculatus | sympatry | 0 | 11 |
| S5 | A.oculatus | sympatry | 15 | 6 |
| S5 | A.oculatus | sympatry | 14 | 170 |
| S5 | A.oculatus | sympatry | 9 | 31 |
| S5 | A.oculatus | sympatry | 5 | 17 |
| S5 | A.oculatus | sympatry | 7 | 17 |
| S5 | A.oculatus | sympatry | 10 | 240 |
| S5 | A.oculatus | sympatry | 8 | 64 |
| S5 | A.oculatus | sympatry | 6 | 123 |
| S5 | A.oculatus | sympatry | 7 | 19 |
| S5 | A.oculatus | sympatry | 4 | 20 |
| S5 | A.oculatus | sympatry | 3 | 29 |
| S5 | A.oculatus | sympatry | 3 | 60 |
| S5 | A.oculatus | sympatry | 1 | 28 |
| S5 | A.oculatus | sympatry | 0 | 19 |
| S5 | A.oculatus | sympatry | 10 | 24 |
| S5 | A.oculatus | sympatry | 0 | 32 |
| S5 | A.oculatus | sympatry | 14 | 30 |
| S5 | A.oculatus | sympatry | 3 | 30 |
| S5 | A.oculatus | sympatry | 4 | 27 |
| S5 | A.oculatus | sympatry | 0 | 45 |
| S6 | A.oculatus | sympatry | 0 | 41 |
| S6 | A.oculatus | sympatry | 0 | 40 |
| S6 | A.oculatus | sympatry | 0 | 36 |
| S6 | A.oculatus | sympatry | 0 | 46 |
| S6 | A.oculatus | sympatry | 0 | 70 |
| S6 | A.oculatus | sympatry | 8 | 30 |
| S6 | A.oculatus | sympatry | 5 | 30 |
| S6 | A.oculatus | sympatry | 2 | 12 |
| S6 | A.oculatus | sympatry | 0 | 21 |
| S6 | A.oculatus | sympatry | 24 | 78 |
| S6 | A.oculatus | sympatry | 9 | 60 |
| S6 | A.oculatus | sympatry | 2 | 60 |
| S6 | A.oculatus | sympatry | 7 | 70 |
| S6 | A.oculatus | sympatry | 5 | 60 |
| S9 | A.oculatus | sympatry | 5 | 41 |
| S9 | A.oculatus | sympatry | 0 | 120 |
| S9 | A.oculatus | sympatry | 0 | 44 |
| S9 | A.oculatus | sympatry | 2 | 35 |
| S9 | A.oculatus | sympatry | 6 | 35 |
| S9 | A.oculatus | sympatry | 0 | 46 |
| S9 | A.oculatus | sympatry | 1 | 20 |
| S9 | A.oculatus | sympatry | 1 | 30 |
| S9 | A.oculatus | sympatry | 18 | 30 |
| S9 | A.oculatus | sympatry | 7 | 36 |
| S9 | A.oculatus | sympatry | 1 | 11 |
| S9 | A.oculatus | sympatry | 9 | 13 |
| S9 | A.oculatus | sympatry | 8 | 20 |
| S9 | A.oculatus | sympatry | 2 | 17 |
| S9 | A.oculatus | sympatry | 7 | 34 |
| S9 | A.oculatus | sympatry | 15 | 220 |
| S9 | A.oculatus | sympatry | 4 | 18 |
| S9 | A.oculatus | sympatry | 6 | 32 |
| S9 | A.oculatus | sympatry | 2 | 24 |
| S9 | A.oculatus | sympatry | 7 | 63 |
| S9 | A.oculatus | sympatry | 5 | 210 |
| S9 | A.oculatus | sympatry | 6 | 30 |
| S9 | A.oculatus | sympatry | 0 | 150 |