**Sample Size and Statistics**

**Figure 1G – H**

Analysis – (G) Total time an individual fly spent performing aggressive behaviors during each of four 30-second periods: prior to, during, immediately following, and 30-60 sec after the stimulus. (H) Total time an individual spent performing aggressive behaviors over a 30-minute trial. Biological repeats for Figure 1H are shown in Figure 1.11.

All are biological replicates and data are representative of at least two independent trials per experiment.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 1G | 20xChrimson | 1 | 71 | Kruskal- | During: |  |
|  | aIPgSS1EmptySS>Chrimson | 23 | 6578 | Wallis(P < 0.0001) | 1 v 42 v 4 | <0.0001<0.0001 |
|  | aIPgSS1>Chrimson20xChrimson | 45 | 10071 | Kruskal- | 3 v 40 – 30s: | <0.0001 |
|  | aIPgSS1EmptySS>ChrimsonaIPgSS1>Chrimson20xChrimsonaIPgSS1EmptySS>ChrimsonaIPgSS1>Chrimson | 6789101112 | 6578100716578100 | Wallis(P < 0.0001)Kruskal-Wallis(P < 0.0001) | 6 v 57 v 58 v 530 – 60s:10 v 911 v 912 v 9 | <0.00010.0005<0.0001<0.00010.00130.0278 |
|  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 1H | aIPgSS1>GFP | 1 | 54 | Kruskal-Wallis | 1 v 2 | 0.1436 |
|  | EmptySS>TNTeaIPgSS1>TNTe | 23 | 2830 | (P < 0.0001) | 1 v 32 v 3 | <0.00010.0048 |
|  |  |  |  |  |  |  |

**Figure 1-supplement 6**

Analysis – (B, D, H) The percentage of flies in each experiment engaging in touching (B), chasing (D), and aggressive (H) behaviors. (F) Velocity during the stimulus period and in the 30-60 seconds following the stimulus. (G) Difference in the average number of flies within two body lengths over the 30-seconds prior to and during the stimulus.

All are biological replicates and data are representative of at least two independent trials per experiment. Sample size for B, D, F, and H are displayed per experiment and each experiment consists of approximately 15 flies.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 1.6B | EmptySS>Chrimson | 1 | 5 | Mann-Whitney | During: |  |
|  | aIPgSS1>Chrimson | 2 | 7 |  | 1 v 2 | 0.0025 |
|  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 1.6D | EmptySS>Chrimson | 1 | 5 | Mann-Whitney | During: |  |
|  | aIPgSS1>Chrimson | 2 | 7 |  | 1 v 2 | 0.0025 |
|  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 1.6F | EmptySS>Chrimson | 1 | 5 | Mann-Whitney | During: |  |
|  | aIPgSS1>Chrimson | 2 | 7 |  | 1 v 2 | 0.0025 |
|  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 1.6G | EmptySS>Chrimson | 1 | 78 | Mann-Whitney | During: |  |
|  | aIPgSS1>Chrimson | 2 | 100 |  | 1 v 2 | 0.0146 |
|  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 1.6H | EmptySS>Chrimson | 1 | 5 | Mann-Whitney | During: |  |
|  | aIPgSS1>Chrimson | 2 | 7 |  | 1 v 2 | 0.0025 |
|  |  |  |  |  |  |  |

**Figure 1-supplement 7**

Analysis – (A – B) The percentage of flies in each experiment engaging in aggressive behaviors.

All are biological replicates and data are representative of at least two independent trials per experiment. Sample size is displayed per experiment and each experiment consists of approximately 15 flies.

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| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 1.7B | EmptySS>Chrimson - | 1 | 7 | Kruskal-Wallis | During: |  |
|  | aIPgSS1>Chrimson -EmptySS>Chrimson + | 23 | 77 | (P = 0.0001) | 1 v 23 v 4 | 0.57720.0006 |
|  | aIPgSS1>Chrimson + | 4 | 8 |  |  |  |
|  |  |  |  |  |  |  |

**Figure 1-supplement 9**

Analysis – (C) Average percentage of flies performing aggressive behaviors over the 30-second period during stimulus delivery. (D) Average percentage of flies performing aggressive behaviors over the 30-second period before 1 Hz, the 60-second periods between subsequent stimuli, and the 30-seconds after 50 Hz stimulation.

All are biological replicates and data are representative of at least two independent trials per experiment. Sample size is displayed per experiment and each experiment consists of approximately 15 flies.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 1.10C | Empty>Chrimson 5Hz | 1 | 4 | Mann-Whitney | 1 v 2 | 0.0095 |
|  | aIPgSS1>Chrimson 5HzEmptySS>Chrimson 10Hz  | 23 | 64 | Mann-Whitney | 3 v 4 | 0.0095 |
|  | aIPgSS1>Chrimson 10HzEmptySS>Chrimson 20HzaIPgSS1>Chrimson 20HzEmpty>Chrimson 30HzaIPgSS1>Chrimson 30HzEmpty>Chrimson 50HzaIPgSS1>Chrimson 50Hz | 45678910 | 6464646 | Mann-WhitneyMann-WhitneyMann-Whitney | 5 v 67 v 89 v 10 | 0.00950.00950.0095 |
|  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 1.10D | Empty>Chrimson 10-Hz | 1 | 4 | Mann-Whitney | 1 v 2 | 0.0190 |
|  | aIPgSS1>Chrimson 10-HzEmptySS>Chrimson 20-Hz  | 23 | 64 | Mann-Whitney | 3 v 4 | 0.3524 |
|  | aIPgSS1>Chrimson 20-HzEmptySS>Chrimson 30-HzaIPgSS1>Chrimson 30-HzEmpty>Chrimson 50-HzaIPgSS1>Chrimson 50-Hz | 45678 | 64646 | Mann-WhitneyMann-Whitney | 5 v 67 v 8 | 0.00950.0095 |
|  |  |  |  |  |  |  |

**Figure 1 – figure supplement 10**

Analysis – (A – C) Total time an individual spent performing aggressive behaviors over a 30-minute trial.

All are biological replicates and data are representative of at least two independent trials per experiment.

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| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 1.10A | EmptySS>TNTe | 1 | 70 | Mann-Whitney | 1 v 2 | <0.0001 |
|  | aIPgSS4>TNTe | 2 | 102 |  |  |  |
|  |  |  |  |  |  |  |

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| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 1.10B | EmptySS>TNTe | 1 | 7 | Mann-Whitney | 1 v 2 | 0.0047 |
|  | aIPgSS4>TNTe | 2 | 6 |  |  |  |
|  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 1.10C | EmptySS>TNTe | 1 | 84 | Mann-Whitney | 1 v 2 | 0.0003 |
|  | aIPgSS5>TNTe | 2 | 36 |  |  |  |
|  |  |  |  |  |  |  |

**Figure 1 – figure supplement 11**

Analysis – (A – B) Total time an individual spent performing aggressive behaviors over a 30-minute trial. (C – D) Average velocity over a 30-minute trial.

A – B are the biological replicates for Figure 1H.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 1.11A | aIPgSS1>GFP | 1 | 52 | Kruskal-Wallis | 1 v 3 | 0.0253 |
|  | EmptySS>TNTeaIPgSS1>TNTe | 23 | 8462 | (P = 0.0058) | 2 v 3 | 0.0103 |
|  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 1.11B | aIPgSS1>ImpTNTe | 1 | 110 | Kruskal-Wallis | 1 v 2 | 0.0017 |
|  | EmptySS>TNTeaIPgSS1>TNTe | 23 | 5674 | (P < 0.0001) | 1 v 32 v 3 | <0.00010.0099 |
|  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 1.11C | aIPgSS1>GFP | 1 | 54 | Kruskal-Wallis | 1 v 2 | 0.2899 |
|  | EmptySS>TNTeaIPgSS1>TNTe | 23 | 2830 | (P = 0.0034) | 1 v 32 v 3 | 0.07970.0025 |
|  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 1.11D | aIPgSS1>GFP | 1 | 52 | Kruskal-Wallis | 1 v 2 | 0.0312 |
|  | EmptySS>TNTeaIPgSS1>TNTe | 23 | 8462 | (P = 0.0220) | 1 v 32 v 3 | >0.99990.1402 |
|  |  |  |  |  |  |  |

**Figure 2**

Analysis – (A – C) Total time an individual spent performing aggressive behaviors in a 16 mm arena over the 30 second period prior to or during stimulation. (A' – C') Amount of time during a 30 second 0.1 mW/mm2 continuous stimulation period until first aggressive encounter.

All are biological replicates and data are representative of at least two independent trials per experiment. For p-values of representative repeat, see Figure 2 figure legend.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 2A | EmptySS>Chrimson | 1 | 22 | Mann-Whitney | During: |  |
|  | aIPgSS1>Chrimson | 2 | 14 |  | 1 v 2 | <0.0001 |
|  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 2B | EmptySS>Chrimson | 1 | 8 | Mann-Whitney | During: |  |
|  | aIPgSS1>Chrimson | 2 | 7 |  | 1 v 2 | 0.0014 |
|  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 2C | EmptySS>Chrimson | 1 | 7 | Mann-Whitney | During |  |
|  | aIPgSS1>Chrimson | 2 | 7 |  | 1 v 2  | 0.0256 |
|  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 2A' | EmptySS>Chrimson | 1 | 22 | Mann-Whitney | 1 v 2 | <0.0001 |
|  | aIPgSS1>Chrimson | 2 | 14 |  |  |  |
|  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 2B' | EmptySS>Chrimson | 1 | 8 | Mann-Whitney | 1 v 2 | 0.0014 |
|  | aIPgSS1>Chrimson | 2 | 7 |  |  |  |
|  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 2C' | EmptySS>Chrimson | 1 | 7 | Mann-Whitney | 1 v 2 | 0.0693 |
|  | aIPgSS1>Chrimson | 2 | 7 |  |  |  |
|  |  |  |  |  |  |  |

**Figure 2 – figure supplement 1**

Analysis – (A – C) Total time an individual spent performing aggressive behaviors in a 16 mm arena over the 30 second period prior to or during stimulation. (A' – C') Amount of time during a 30 second 0.1 mW/mm2 continuous stimulation period until first aggressive encounter.

All are biological replicates and data are representative of at least two independent trials per experiment.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 2.1A | EmptySS>Chrimson | 1 | 8 | Mann-Whitney | During: |  |
|  | aIPgSS3>Chrimson | 2 | 20 |  | 1 v 2 | <0.0001 |
|  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 2.1B | EmptySS>Chrimson | 1 | 7 | Mann-Whitney | During: |  |
|  | aIPgSS3>Chrimson | 2 | 10 |  | 1 v 2 | 0.0414 |
|  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 2.1C | EmptySS>Chrimson | 1 | 8 | Mann-Whitney | During |  |
|  | aIPgSS3>Chrimson | 2 | 10 |  | 1 v 2  | 0.0007 |
|  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 2.1A' | EmptySS>Chrimson | 1 | 8 | Mann-Whitney | 1 v 2 | <0.0001 |
|  | aIPgSS3>Chrimson | 2 | 20 |  |  |  |
|  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 2.1B' | EmptySS>Chrimson | 1 | 7 | Mann-Whitney | 1 v 2 | 0.0288 |
|  | aIPgSS3>Chrimson | 2 | 10 |  |  |  |
|  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 2.1C' | EmptySS>Chrimson | 1 | 8 | Mann-Whitney | 1 v 2 | 0.0003 |
|  | aIPgSS3>Chrimson | 2 | 10 |  |  |  |
|  |  |  |  |  |  |  |

**Figure 2 – figure supplement 2**

Analysis – Average velocity over the 30-seconds either prior to or during the stimulus.

All are biological replicates and data are representative of at least two independent trials per experiment.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 2.2 | aIPgSS1>ChrimsonPreStim | 1 | 11 | Mann-Whitney | 1 v 2 | 0.7969 |
|  | aIPgSS1>ChrimsonStim | 2 | 11 |  |  |  |
|  |  |  |  |  |  |  |

**Figure 2 – figure supplement 3**

Analysis – Amount of time until first copulation event following a continuous stimulus.

All are biological replicates and data are representative of at least two independent trials per experiment.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 2.3 | EmptySS>Chrimson | 1 | 16 | Mann-Whitney | 1 v 2 | 0.7795 |
|  | aIPgSS1>Chrimson | 2 | 18 |  |  |  |
|  |  |  |  |  |  |  |

**Figure 4**

Analysis – (C) Total time an individual spent performing aggressive behaviors during each of four 30-second periods: prior to, during, immediately following, and 30-60 sec after the stimulus.

All are biological replicates and data are representative of at least three independent trials per experiment.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 4C | 20xChrimson | 1 | 29 | Kruskal- | During: |  |
|  | pC1dSS1EmptySS>Chrimson | 23 | 4846 | Wallis(P < 0.0001) | 1 v 42 v 4 | 0.0017<0.0001 |
|  | pC1dSS1>Chrimson20xChrimson | 45 | 5329 | Kruskal- | 3 v 40 – 30s: | <0.0001 |
|  | pC1dSS1EmptySS>ChrimsonpC1dSS1>Chrimson20xChrimsonpC1dSS1EmptySS>ChrimsonpC1dSS1>Chrimson | 6789101112 | 48465329484653 | Wallis(P = 0.0242)Kruskal-Wallis(P = 0.0036) | 6 v 57 v 58 v 530 – 60s:10 v 911 v 912 v 9 | 0.80660.0259>0.9999>0.99990.20920.7593 |
|  |  |  |  |  |  |  |

**Figure 4 – figure supplement 5**

Analysis – (A) Average percentage of flies engaging in aggressive behaviors over the 30-second period prior to or during stimulus delivery. (C', D') Average percentage of flies touching (C') or chasing (D') over the 30-second period prior to or during the stimulus delivery.

All are biological replicates and data are representative of at least three independent trials per experiment. Sample size is displayed per experiment and each experiment consists of approximately 15 flies.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 4.5A | EmptySS>Chrimson | 1 | 5 | Mann-Whitney | During: |  |
|  | pC1dSS1>Chrimson | 2 | 5 |  | 1 v 2 | 0.0079 |
|  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 4.5C' | EmptySS>Chrimson | 1 | 5 | Mann-Whitney | During: |  |
|  | pC1dSS1>Chrimson | 2 | 5 |  | 1 v 2 | 0.0079 |
|  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 4.5D' | EmptySS>Chrimson | 1 | 5 | Mann-Whitney | During: |  |
|  | pC1dSS1>Chrimson | 2 | 5 |  | 1 v 2 | 0.0159 |
|  |  |  |  |  |  |  |

**Figure 4 – figure supplement 6**

Analysis – (B) Average percentage of flies engaging in aggressive behaviors over the 30 second period prior to or during the delivery of a stimulus.

All are biological replicates and data are representative of at least two independent trials per experiment. Sample size is displayed per experiment and each experiment consists of approximately 15 flies.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 4.6B | EmptySS>Chrimson | 1 | 1 | Kruskal-Wallis | During: |  |
|  | pC1dSS1>ChrimsonpC1eSS1>Chrimson | 23 | 33 | (P = 0.0146) | 2 v 4 | >0.9999 |
|  | pC1d/eSS>Chrimson | 4 | 5 |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

**Figure 4 – figure supplement 8**

Analysis – (A – B) The percentage of flies in each experiment engaging in aggressive behaviors.

All are biological replicates and data are representative of at least two independent trials per experiment. Sample size is displayed per experiment and each experiment consists of approximately 15 flies.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 4.8B | EmptySS>Chrimson - | 1 | 7 | Kruskal-Wallis | During: |  |
|  | pC1dSS1>Chrimson -EmptySS>Chrimson + | 23 | 88 | (P = 0.0007) | 1 v 23 v 4 | >0.99990.0030 |
|  | pC1dSS1>Chrimson + | 4 | 9 |  |  |  |
|  |  |  |  |  |  |  |

**Figure 4 – figure supplement 10**

Analysis – (C) Average percentage of flies performing aggressive behaviors over the 30-second period during stimulus delivery. (D) Average percentage of flies performing aggressive behaviors over the 30-second period before 1 Hz, the 60-second periods between subsequent stimuli, and the 30-seconds after 50 Hz stimulation.

All are biological replicates and data are representative of at least two independent trials per experiment. Sample size is displayed per experiment and each experiment consists of approximately 15 flies.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 4.10C | Empty>Chrimson 5Hz | 1 | 3 | Mann-Whitney | 1 v 2 | 0.2500 |
|  | pC1dSS1>Chrimson 5HzEmptySS>Chrimson 10Hz  | 23 | 53 | Mann-Whitney | 3 v 4 | 0.3929 |
|  | pC1dSS1>Chrimson 10HzEmptySS>Chrimson 20HzpC1dSS1>Chrimson 20HzEmpty>Chrimson 30HzpC1dSS1>Chrimson 30HzEmpty>Chrimson 50HzpC1dSS1>Chrimson 50Hz | 45678910 | 5353535 | Mann-WhitneyMann-WhitneyMann-Whitney | 5 v 67 v 89 v 10 | 0.03570.03570.0714 |
|  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 4.10D | Empty>Chrimson 10-Hz | 1 | 3 | Mann-Whitney | 1 v 2 | 0.1429 |
|  | pC1dSS1>Chrimson 10-HzEmptySS>Chrimson 20-Hz  | 23 | 53 | Mann-Whitney | 3 v 4 | 0.5714 |
|  | pC1dSS1>Chrimson 20-HzEmptySS>Chrimson 30-HzpC1dSS1>Chrimson 30-HzEmpty>Chrimson 50-HzpC1dSS1>Chrimson 50-Hz | 45678 | 53535 | Mann-WhitneyMann-Whitney | 5 v 67 v 8 | 0.39290.0357 |
|  |  |  |  |  |  |  |

**Figure 4 – figure supplement 11**

Analysis – (A – C) Total time an individual spent performing aggressive behaviors in a 16 mm arena over the 30 second period prior to or during stimulation. (A' – C') Amount of time during a 30 second 0.1 mW/mm2 continuous stimulation period until first aggressive encounter.

All are biological replicates and data are representative of at least two independent trials per experiment.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 4.11A | EmptySS>Chrimson | 1 | 22 | Mann-Whitney | 1 v 2 | <0.0001 |
|  | pC1dSS1>Chrimson | 2 | 22 |  |  |  |
|  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 4.11B | EmptySS>Chrimson | 1 | 8 | Mann-Whitney | 1 v 2 | 0.0004 |
|  | pC1dSS1>Chrimson | 2 | 8 |  |  |  |
|  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 4.11C | EmptySS>Chrimson | 1 | 7 | Mann-Whitney | 1 v 2 | 0.0084 |
|  | pC1dSS1>Chrimson | 2 | 8 |  |  |  |
|  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 4.11A' | EmptySS>Chrimson | 1 | 22 | Mann-Whitney | 1 v 2 | <0.0001 |
|  | pC1dSS1>Chrimson | 2 | 22 |  |  |  |
|  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 4.11B' | EmptySS>Chrimson | 1 | 8 | Mann-Whitney | 1 v 2 | 0.0014 |
|  | pC1dSS1>Chrimson | 2 | 8 |  |  |  |
|  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 4.11C' | EmptySS>Chrimson | 1 | 7 | Mann-Whitney | 1 v 2 | 0.0126 |
|  | pC1dSS1>Chrimson | 2 | 8 |  |  |  |
|  |  |  |  |  |  |  |

**Figure 4 – figure supplement 12**

Analysis – Total time an individual spent performing aggressive behaviors over a 30-minute trial.

All are biological replicates and data are representative of at least two independent trials per experiment.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 4.12 | pC1dSS1>GFP | 1 | 42 | Kruskal-Wallis | 1 v 2 | 0.1437 |
|  | EmptySS>TNTepC1dSS1>TNTe | 23 | 2824 | (P = 0.1156) | 1 v 32 v 3 | 0.5411>0.9999 |
|  |  |  |  |  |  |  |

**Figure 4 – figure supplement 13**

Analysis – (B) Average percentage of flies engaging in aggressive behaviors over the 30-second period prior to or during stimulus delivery.

All are biological replicates and data are representative of at least two independent trials per experiment. Sample size is displayed per experiment and each experiment consists of approximately 15 flies.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 4.13B | EmptySS>Chrimson | 1 | 6 | Mann-Whitney | During: |  |
|  | pC1eSS1>Chrimson | 2 | 6 |  | 1 v 2 | 0.0649 |
|  |  |  |  |  |  |  |

**Figure 9B, E**

Analysis – (B) Fraction of time individuals spent performing aggressive behaviors during the stimulus period. (E) Mean length of classified aggressive behavioral events during the stimulus period.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 9B | aIPgSS1>Chrimson\_L | 1 | 8 | Mann-Whitney | During: |  |
|  | aIPgSS1>Chrimson\_D | 2 | 8 |  | 1 v 2 | 0.0019 |
|  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Figure | Condition | # | Sample Size | Statistical Test | Comparison | P-value |
| 9E | aIPgSS1>Chrimson\_L | 1 | 8 | Mann-Whitney | During: |  |
|  | aIPgSS1>Chrimson\_D | 2 | 8 |  | 1 v 2 | 0.0070 |
|  |  |  |  |  |  |  |