|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Supplementary Table 3.** Model outputs from statistical analyses of natural enemy activity from Ghanaian maize fields, using dummy caterpillar attack rate and total abundance, species richness and inverse Simpsons Diversity Index (from pitfall trap samples) as proxy metrics. Values are given with standard errors in brackets. p-values are presented below each value (ns not significant, . p<0.1, \* p < 0.05, \*\* p < 0.01). Subscripts to R2 values indicate the pseudo-R2 used, see Supplementary Text 1. Eleven pitfall trap samples were taken over 11 consecutive days (121 samples total) in UM1 and 16 pitfall trap samples were taken in UM2 (8 per plot). 134 dummy caterpillars were recovered from UM2 (160 deployed). | | | | | | | | | |
| **Dataset** | | **Response variable** | **Explanatory variables** | | | | | **Model fit parameters** | |
|  |  |  | **Intercept** | **Distance\***  **Day since planting** | **Distance** | **Day since planting** | **Habitat type** | R2 | Adjusted R2 |
| **UM1** | Araneae | Total abundance | -0.123 (0.942) | -0.00880 (0.00439)  \* | 0.0776 (0.0527)  ns | 0.0878 (0.0704) ns | -0.130 (0.477)  ns | 0.101D | 0.0400D, Dγ |
| Total abundance outlier removed†† | -0.119 (0.815) | -0.00559 (0.00371)  ns | 0.0415 (0.0474)  ns | 0.0940 (0.0583)  ns | 0.222 (0.404)  ns | 0.110D | 0.0580D, Dγ |
| Species richness | -0.508 (0.701) | -0.00615 (0.00311)  . | 0.0541 (0.0397)  ns | 0.103 (0.050)  \* | 0.106 (0.348)  ns | 0.122D | 0.0786D, Dγ |
| Inverse Simpsons | -0.0468 (0.456) | -0.00372 (0.00197)  . | 0.0357 (0.0254)  ns | 0.0580 (0.0330)  . | 0.225 (0.226)  \* | 0.183 | 0.121 |
| Hymenoptera | Total abundance | 2.43 (0.564) | 0.00210 (0.00218)  ns | -0.0171 (0.0302)  ns | 0.0385 (0.0402) ns | 0.120 (0.253)  ns | 0.110D | -0.0976D, γ |
| Species richness | 2.12 (0.345) | 0.00157 (0.00143)  ns | -0.0238 (0.0190)  ns | -0.0137 (0.0255)  ns | -0.089 (0.161)  ns | 0.0331D | -0.0313D, γ |
| Inverse Simpsons | 7.86 (1.29) | 0.0107 (0.00530)  \* | -0.168 (0.0691)  \* | -0.257 (0.0956)  \*\* | -0.267 (0.612)  ns | 0.132 | 0.0827 |
|  |  |  | **Intercept** | **Distance\* Habitat type** | **Distance** | **Habitat type** | **Plot** | R2 | Adjusted R2 |
| **UM2** | Araneae | Total abundance | 0.0609 (0.554) | -0.0229 (0.0794)  ns | 0.0229 (0.0481)  ns | -0.379 (0.989)  ns | 0.560 (0.443)  ns | 0.175D | -0.0225D, γ |
| Species richness | -1.82e-01 (6.25e-01) | -1.59e-10 (8.49e-02)  ns | 1.57e-10 (5.66e-02)  ns | -2.23e-01 (1.02)  ns | 6.93e-01 (5.00e-01)  ns | 0.168D | -0.129D, γ |
| Inverse Simpsons | 0.114 (0.267) | -0.0555 (0.0470)  ns | 0.0555 (0.0323)  ns | 0.215 (0.521)  ns | -0.147 (0.258)  ns | 0.312 | -0.0808 |
| Hymenoptera | Total abundance | 3.17 (0.494) | -0.0811 (0.0642)  ns | 0.0531 (0.0456)  ns | 0.0548 (0.813)  ns | -1.17 (0.414)  \* | 0.506D | 0.326D, Dγ |
| Species richness | 1.56 (0.299) | -0.0509 (0.0437)  ns | 0.0538 (0.0269)  \* | -0.0688 (0.549)  ns | -0.554 (0.241)  \* | 0.480D | 0.352D, γ |
| Inverse Simpsons | 2.43 (0.643) | -0.113 (0.0897)  ns | 0.157 (0.0630)  \* | 0.695 (1.08)  ns | -0.470 (0.517)  ns | 0.534 | 0.348 |
| Dummy caterpillars | Attack rate† | -2.42 (0.593) | -0.141 (0.0619)  \* | 0.107 (0.0454)  \* | 0.958 (0.727)  ns | 1.25 (0.366)  \*\* | 0.586D | 0.446D, Dγ |

†Dummy caterpillar attack rate analysed as (Total attacked, Total not attacked), as required for binomial glm

††There is an outlier on Day 7, transect point 20m, with total Araneae abundance of 18. The Araneae abundance data was reanalysed without the outlier to see if this affected the results (which it did; distance\*day interaction ceased to be statistically significant).