**Supporting Information**

Landscape-level crop diversity benefits biological pest control

Redlich, S., Martin, E.A., Steffan-Dewenter, I.,

Appendix S 1**:** Detailed description of common experimental design and natural enemy exclusion experiment

BASIC STUDY DESIGN

This research was conducted as part of a larger field experiment within the framework of the project Liberation (“LInking farmland Biodiversity to Ecosystem seRvices for effective ecological intensificATION“), funded by the European Union (grant number: 311781). This major study explored how local management practices (fertilizer application, insecticide input, field soil organic carbon) in combination with changes in cropland area at the expense of seminatural habitat determine the abundance of pests and predators, biological pest control, and crop yields. For this purpose, a common field experiment was designed and implemented in seven European countries participating in the research (Germany, Hungary, Italy, Poland, Sweden, The Netherlands, United Kingdom).

The common experiment incorporated a paired-field design (Fig. 1, main text), in which pairing was achieved by joining two conventional winter wheat fields of contrasting soil organic carbon content (= SOC, high/low) yet similar soil texture, pH (less than 0.5 unit difference) and field margin quality (mostly grassy edge) along a gradient of landscape simplification defined by the proportion of arable land in 1000m radius. In Germany, the 18 fields (nine field pairs, within-pair distance between fields mean+SE 1246+328, range 185-2496m) were also selected to cover landscapes with varying crop diversity at six spatial scales: 100, 250, 500, 1000, 2000 and 3000m (12 crop categories, Table S1, Eurostat 2012). Correlations between crop diversity and the amount of seminatural habitat, cropland cover, field size and overall habitat diversity on all spatial scales were kept to a minimum.

The paired design allowed to separate effects of increasing soil organic carbon from those of soil texture and pH. At the same time, fields were selected to include different management practices (e.g. till or no-till, long or short crop rotations, mineral vs. organic fertilizer input) to ensure that SOC effects were not in fact driven by specific field management types. Soil conditions of potential fields were assessed by collecting five soil cores (30mm diameter, 15cm deep). Samples were pooled within fields, homogenized and stored at 5°C before analyses of pH and SOC. In Germany, soil texture within potential fields was determined using soil maps (Bayerische Vermessungsverwaltung 2010).

Study plots (> 50x15m) were established along the edge of each field, at least 15m from headlands. A crossed insecticide (pyrethroid insecticide, yes/no) and fertilizer treatment (no=0 kg/ha, yes= three applications of ammonium sulfate nitrate at ~BBCH 20 (90kg/ha), ~BBCH 30 (50kg/ha) and ~BBCH 55 (50kg/ha)) was established by randomly assigning each treatment combination to one of the four established subplots (12x14m each). Farmers were not allowed to use insecticides or fertilizers on or near study plots. Herbicides and fungicides were applied as usual. Natural enemy exclusion cages (see below) were only employed on non-insecticide plots, hence the treatment „insecticide“ is irrelevant for this study and therefore not shown in Fig. 1 (main text).

Owing to the underlying experimental design, we included both SOC and fertilization as covariates in our analysis. However, no effect on natural enemy abundances and SOC was observed (see table1 main text, Fig. S1). Additionally, preliminary analyses relating local field management to recorded aphid densities using a generalized mixed effects model with Poisson distribution did not reveal any effects of SOC (=0.36, estimate (95% confidence intervals)= -0.08 (-0.72, 0.3)) or Nitrogen (=0.29, estimate(CIs)= 0.01 (-0.3, 0.39)), nor their interaction (=0.03, estimate(CIs)= -0.006 (-0.81,0.49)).

NATURAL ENEMY EXCLUSION EXPERIMENT

During the grain milk stage (BBCH 66 to 77), aphid populations (3 populations per subplot = 6 populations per field, Fig. 1 in main text) were established on patches of winter wheat (30cm diameter, initial aphid density ~100), in which natural enemies had previously been removed manually and using pitfall traps. Patches were separated by at least 2m and covered with fiber web tents to prevent re-colonization of predators. We used lab-reared cereal aphids *Sitobion avenae* (Katz Biotech AG) that had been acclimated to local conditions for 14 days prior to establishment. Establishment success was monitored after five days, and patches were re-inoculated if necessary. Day 10 after the first inoculation marked the starting date of the natural enemy exclusion experiment. Three exclusion treatments were set up: ‘Open Treatment’ (access for flying and ground-dwelling arthropods, birds and parasitoids), ‘Bird Exclosure’ (only bird predators excluded) and ‘Full Exclosure’ (=control all birds, arthropod predators and parasitoids excluded) (Fig. 1, main text). Due to variable establishment success, care was taken to achieve similar starting densities for aphids across all treatments (mean+SE aphid densities ‘Bird Exclosure’ 86.44+17.47, ‘Full Exclosure’ 94.33+19.61, ‘Open treatment’ 126.19+30.73, Fig. S1). Exclusion cages consisted of 30x100cm plastic mesh cylinders (‘Bird Exclosure’ mesh size 20x20mm, ‘Full Exclosure’ mesh size 5x5mm). Additionally, ‘Full Exclosure’ cages were covered in sticky glue (Thies *et al.* 2011), and metal rings (32cm diameter, 25cm high) were inserted 10cm into the ground to prevent re-colonization of flying and ground-dwelling predators. In total, each field received two replicates per exclusion treatment (6 cages per field), one per fertilization subplot (fertilized *vs.* non-fertilized; Fig. 1).

Within each exclusion treatment, aphids were counted non-destructively on 10 randomly selected tillers in 5-day intervals (day 0, 5, 10, 15). Additionally, we recorded the number of aphid mummies and natural predators such as vegetation-dwelling hoverfly, ladybird and lacewing larvae and spiders, and aerial predators such as adult ladybirds and parasitoids in order to investigate effects on predator density and parasitism rate. The strength of biological control for each five-day interval was assessed by calculating a biological control index (BCI, (Gardiner et al. 2009) for the treatments ‘Bird Exclosure’ and ‘Open treatment’ as

where is the number of aphids in the treatment on the final day*,* is the ratio of final to initial aphid numbers in the ‘Full exclosure’ (aphid population growth when all predators are excluded), and is the initial number of aphids in the treatment. The BCI metric ranges from 0 (no net reduction in aphid densities in open treatments) to 1 (optimal biological control, 100% of aphids consumed). Following (Gardiner *et al.* 2009) negative BCI values were set to zero as these indicate ineffective biological control. BCI was calculated separately for ‘Bird exclosure’ and ‘Open treatments’ for three 5-day intervals (‘BCI’, days 0 to 5, 5 to 10, 10 to 15). Predator densities were pooled across all predatory guilds for each sampling round (days 5, 10, 15). Due to the low rate of parasitism, analysis of parasitism rate (the fraction of parasitized to total aphids) was restricted to day 15.

References:

Bayerische Vermessungsverwaltung. (2010) http://geoportal.bayern.de/geodatenonline

Eurostat. (2012) Agri-environmental indicator – cropping patterns – Statistics Explained, <http://ec.europa.eu/eurostat/statistics-explained/index.php/Agri-environmental_indicator_-_cropping_patterns>

Gardiner, M.M., Landis, D.A., Gratton, C., DiFonzo, C.D., O’Neal, M., Chacon, J.M., Wayo, M.T., Schmidt, N.P., Mueller, E.E. & Heimpel, G.E. (2009) Landscape diversity enhances biological control of an introduced crop pest in the north-central USA. *Ecological Applications*, **19**, 143–154.

Thies, C., Haenke, S., Scherber, C., Bengtsson, J., Bommarco, R., Clement, L.W., Ceryngier, P., Dennis, C., Emmerson, M., Gagic, V., Hawro, V., Liira, J., Weisser, W.W., Winqvist, C. & Tscharntke, T. (2011) The relationship between agricultural intensification and biological control: experimental tests across Europe. Ecological Applications, 21, 2187–2196.

Table S1: Summary statistics of landscape parameters used in analyses (crop diversity and proportion of seminatural habitat) for each of the six landscape scales (18 fields). For crop diversity, the minimum and maximum effective number of crop species (ENCS) was calculated as exp(crop diversity) (Jost 2006)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Scale | *N* | Mean | SD | SE | Min | ENCS Min | Max | ENCS Max | Description |
| *Crop diversity* | | | | | |  |  |  | Shannon index calculated from the proportional cover of twelve crop types: cereals (excluding grain maize), 1- or 2-year old fallows, flowers and ornamental plants, temporary grassland and green fodder (green maize), legumes, maize, oilseed and fibre crops (excluding rape), rape and turnips, root crops, sunflowers, vegetables, other industrial crops (Eurostat 2012) |
| 100 | 18 | 0.58 | 0.37 | 0.09 | 0.00 | 1.00 | 1.32 | 3.72 |
| 250 | 18 | 0.66 | 0.32 | 0.08 | 0.00\* | 1.00\* | 1.24\* | 3.45\* |
| 500 | 18 | 0.90 | 0.26 | 0.06 | 0.50 | 1.65 | 1.44 | 4.23 |
| 1000 | 18 | 1.06 | 0.23 | 0.06 | 0.74 | 2.10 | 1.44 | 4.23 |
| 2000 | 18 | 1.21 | 0.19 | 0.04 | 0.89\* | 2.44\* | 1.48\* | 4.41\* |
| 3000 | 18 | 1.24 | 0.14 | 0.03 | 1.03 | 2.79 | 1.47 | 4.34 |
|  |  |  |  |  |  |  |  |  |  |
| *Seminatural habitat cover* | | | | |  |  |  |  | Proportional cover (%) of natural habitats including extensive perennial grassland, orchard meadows, hedgerows, forest edges (10 m into the forest), field and grass margins along linear elements (rivers and roads) |
| 100 | 18 | 24.95 | 24.77 | 5.84 | 2.19 | - | 76.88 | - |
| 250 | 18 | 26.47 | 23.20 | 5.47 | 1.16 | - | 76.55 | - |
| 500 | 18 | 24.91 | 16.08 | 3.79 | 4.51 | - | 53.00 | - |
| 1000 | 18 | 24.15 | 13.57 | 3.20 | 8.35 | - | 53.50 | - |
| 2000 | 18 | 21.95 | 10.45 | 2.46 | 7.98 | - | 40.66 | - |
| 3000 | 18 | 21.28 | 8.60 | 2.03 | 10.08 | - | 36.98 | - |

\* values used to estimate enhancement of biological control, see Fig. 4 (main text)

Reference:

Eurostat. (2012) Agri-environmental indicator – cropping patterns – Statistics Explained, http://ec.europa.eu/ urostat/statistics-explained/index.php/Agri-environmental\_indicator\_-\_cropping\_patterns

Jost, L. (2006) Entropy and diversity. *Oikos*, **113**, 363–375.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | CropDiv | % SNH | % Arable | HabDiv | Field size | Aphids | Fertilization\* | SOC\* |  |
| CropDiv | - | 0.026 | 0.054 | 0.41 | 0.48 | 0.23 | 0 | 0.28 |  |
| % SNH | 0.22 | - | 0.99 | 0.65 | 0.55 | 0.11 | 0 | 0.18 |  |
| % Arable | 0.092 | 0.95 | - | 0.74 | 0.6 | 0.11 | 0 | 0.21 |  |
| HabDiv | 0.27 | 0.56 | 0.74 | - | 0.66 | 0.14 | 0 | 0.3 |  |
| Field size | 0.51 | 0.36 | 0.42 | 0.43 | - | 0.21 | 0 | 0.16 | **100m** |
| Aphids | 0.13 | 0.11 | 0.1 | 0.14 | 0.046 | - | 0 | 0.14 |  |
| Fertilization\* | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 |  |
| SOC\* | 0.044 | 0.12 | 0.17 | 0.023 | 0.012 | 0.14 | 0 | - |  |
|  |  |  |  | **250m** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| CropDiv | - | 0.28 | 0.21 | 0.018 | 0.47 | 0.082 | 0 | 0.2 |  |
| % SNH | 0.47 | - | 0.92 | 0.8 | 0.11 | 0.16 | 0 | 0.057 |  |
| % Arable | 0.34 | 0.9 | - | 0.93 | 0.23 | 0.12 | 0 | 0.042 |  |
| HabDiv | 0.17 | 0.77 | 0.94 | - | 0.4 | 0.09 | 0 | 0.003 | **500m** |
| Field size | 0.17 | 0.24 | 0.4 | 0.56 | - | 0.02 | 0 | 0.022 |  |
| Aphids | 0.018 | 0.24 | 0.16 | 0.13 | 0.032 | - | 0 | 0.14 |  |
| Fertilization\* | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 |  |
| SOC\* | 0.24 | 0.14 | 0.051 | 0.12 | 0.046 | 0.14 | 0 | - |  |
|  |  |  |  | **1000m** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| CropDiv | - | 0.33 | 0.022 | 0.07 | 0.067 | 0.16 | 0 | 0.16 |  |
| % SNH | 0.25 | - | 0.87 | 0.81 | 0.34 | 0.22 | 0 | 0.074 |  |
| % Arable | 0.11 | 0.86 | - | 0.97 | 0.44 | 0.12 | 0 | 0.032 |  |
| HabDiv | 0.12 | 0.82 | 0.95 | - | 0.6 | 0.12 | 0 | 0.028 | **2000m** |
| Field size | 0.2 | 0.4 | 0.63 | 0.72 | - | 0.015 | 0 | 0.096 |  |
| Aphids | 0.12 | 0.22 | 0.12 | 0.1 | 0.04 | - | 0 | 0.14 |  |
| Fertilization\* | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 |  |
| SOC\* | 0.13 | 0.049 | 0.001 | 0.037 | 0.13 | 0.14 | 0 | - |  |
|  |  |  |  | **3000m** |  |  |  |  |  |

Table S2:Correlation matrix (Pearson’s r) of predictor and landscape variables for each spatial scale (100m, 250m, 500m, 1000m, 2000m, 3000m). Landscape-level crop diversity (CropDiv) is the Shannon Wiener index of 12 arable crop categories. SNH = seminatural habitat cover, HabDiv = landscape-level habitat diversity based on the Shannon Wiener index of 6 broadly classified land use types in the study area (annual crops, perennial crops, seminatural habitat, forest, water, urban), SOC = soil organic carbon content (low, high), Fertilization (yes, no), Aphids= aphid densities recorded within each treatment. Values above and below diagonals report correlations at successive spatial scales.

\* Fertilization (fertilization treatment yes/no) and SOC (soil organic carbon content low/high) are shown due to the nature of the experimental design and analysis, yet not further developed in this paper (see METHODS).

Table S3: Full landscape models (general or generalized linear mixed effects models) for biological control, predator density and parasitism rate. Separate models were built for each of the six landscape scales around study fields (100m, 250m, 500m, 1000m, 2000m, 3000m). The random effect structure accounted for the nested design: fields within a pair (‘Pair’), two fertilization treatment levels per field (‘Field’), three exclusion treatments in every fertilization subplot (‘Subplot’). For predator density the random term ‘Cage’ accounted for replication within each exclusion treatment (three predator and aphid surveys). Model fit of full models was assessed with marginal (R2m) and conditional (R2c) R-squared for every landscape scale, and average R2 values (± SE) were calculated across scales.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Response variable* | | |  |  |  |  |
|  | Scale | Distribution | Fixed effects\* | Random effects | R2m | R2c |
|  |  |  |  |  |  |  |
| *Biological control* | | |  |  |  |  |
|  | 100m  250m  500m  1000m  2000m  3000m | normal | F + SOC + B + S + CropDiv + SNH + CropDiv:S + CropDiv:SNH | Pair/Field/Subplot/Cage | 0.22  0.23  0.22  0.2  0.19  0.21 | 0.27  0.28  0.26  0.23  0.22  0.23 |
| Mean R2(±SE) | | |  |  | 0.21(±0.005) | 0.25(±0.009) |
|  | |  |  |  |  |  |
| *Predator density* | | |  |  |  |  |
|  | 100m  250m  500m  1000m  2000m  3000m | Poisson | A + F + SOC + B + S + CropDiv + SNH + CropDiv:S CropDiv:SNH | Pair/Field/Subplot/Cage | 0.27  0.27  0.23  0.20  0.21  0.21 | 0.30  0.30  0.29  0.30  0.31  0.30 |
| Mean R2(±SE) | | |  |  | 0.23(±0.01) | 0.30(±0.002) |
|  |  |  |  |  |  |  |
| *Parasitoid density*† | | | |  |  |  |
|  | 100m  250m  500m  1000m  2000m  3000m | Poisson | A + F + SOC + B + CropDiv + SNH + CropDiv:SNH | Pair/Field/Subplot | 0.23  0.26  0.43  0.26  0.35  0.29 | 0.4  0.36  0.47  0.39  0.43  0.38 |
| Mean R2(±SE) | | |  |  | 0.3(±0.03) | 0.41(±0.01) |

\* Fixed effects abbreviations: A = Aphid density, B = Bird exclusion (birds excluded yes/no), CropDiv = Crop diversity, F = Nitrogen fertilization (fertilizer applied yes/no), SNH = Proportion of seminatural habitat, SOC = Soil organic carbon content (soil organic carbon content low/high), S = Survey interval (days 0 to 5, 5 to 10 and 10 to 15), CropDiv:S = Interaction Crop diversity x Survey interval, CropDiv:SNH= Interaction Crop diversity x Proportion of seminatural habitat. Fertilization and SOC are included due to the nature of the experimental design and analysis, yet not further developed in this paper

† Parasitoid density was only analyzed for day 15, as parasitoid density was very low on days 5 and 10. No temporal effect was tested thus a random effect for Cage was not included.

Table S4: Full models (general linear mixed effects models) relating bird predation, predator and parasitoid densities to biological control. Model fit of full models was assessed with marginal (R2m) and conditional (R2c) R-squared. The random effect structure accounted for the nested design: fields within a pair (‘Pair’), two fertilization treatment levels per field (‘Field’), three exclusion treatments in every fertilization subplot (‘Subplot’). For predator density the random term ‘Cage’ accounted for replication within each exclusion treatment (three predator and aphid surveys).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Response variable | Model distribution | Fixed effects\* | Random effects | R2m | R2c |
| *Biological control* | normal | B+ S + PR + PR:S + PR:B + B:S:PR | Pair/Field/Subplot/Cage | 0.2 | 0.23 |
| *Biological control* | normal | B + PA + PA+B | Pair/Field/Subplot | 0.13 | 0.42 |

\* Fixed effects abbreviations: B = Bird exclusion (birds excluded yes/no), PR = predator density, PA = parasitoid density, S = Survey interval (days 0 to 5, 5 to 10 and 10 to 15).

† Effect of parasitoid density on biological control was only analyzed for day 15, as parasitoid density was very low on days 5 and 10. No temporal effect was tested thus a random effect for Cage was not included.

Table S5: Estimates and model weights of landscape models with ∆AICc < 7 for six spatial scales (100m, 250m, 500m, 1000m, 2000m and 3000m) for biological control, predator and parasitoid density. Models are listed in descending order according to their ∆AICc. Standardized parameter estimates, degrees of freedom (df), Akaike’s Information Criterion with small-sample size adjustment (AICc), ∆AICc, Akaike weights () of each explanatory variable for the set of top models and summed weights () for each scale based on model averaging are reported. Model fit was assessed using marginal (R2m) and conditional (R2c) R-squared values for each top model. ‘+’ indicates the inclusion of the categorical variable in the specific top model, ‘NA‘ parameters not selected in set of top models, and ‘-’ parameters not used in full model. with 95% confidence intervals of estimates excluding zero are highlighted in bold.

| Scale | Intercept | CropDiv\* | SNH\* | S\* | B\* | F\*† | SOC\*† | A\* | CropDiv:S\* | CropDiv:SNH\* | df | LogL |  |  |  | R²m | R²c |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Biological control (BCI)* | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **100** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 0.408 | -0.056 |  | + | + |  |  | - | + |  | 15 | -44.7 | 121.7 | 0.0 | 0.19 | 0.22 | 0.28 |
|  | 0.378 | -0.056 |  | + |  |  |  | - | + |  | 14 | -45.9 | 121.8 | 0.1 | 0.18 | 0.21 | 0.27 |
|  | 0.389 | -0.046 |  | + | + |  | + | - | + |  | 16 | -44.4 | 123.6 | 1.8 | 0.07 | 0.22 | 0.28 |
|  | 0.378 | -0.056 | -0.018 | + |  |  |  | - | + |  | 15 | -45.6 | 123.6 | 1.9 | 0.07 | 0.21 | 0.26 |
|  | 0.424 | -0.056 |  | + | + | + |  | - | + |  | 16 | -44.4 | 123.6 | 1.9 | 0.07 | 0.22 | 0.28 |
|  | 0.358 | -0.045 |  | + |  |  | + | - | + |  | 15 | -45.6 | 123.6 | 1.9 | 0.07 | 0.21 | 0.26 |
|  | 0.394 | -0.056 |  | + |  | + |  | - | + |  | 15 | -45.6 | 123.6 | 1.9 | 0.07 | 0.21 | 0.26 |
|  | 0.394 | -0.056 | -0.019 | + |  | + |  | - | + |  | 16 | -45.4 | 125.4 | 3.7 | 0.03 | 0.21 | 0.26 |
|  | 0.424 | -0.057 | -0.018 | + | + | + |  | - | + |  | 17 | -44.2 | 125.4 | 3.7 | 0.03 | 0.22 | 0.28 |
|  | 0.374 | -0.045 |  | + |  | + | + | - | + |  | 16 | -45.4 | 125.5 | 3.7 | 0.03 | 0.21 | 0.26 |
|  | 0.404 | -0.046 |  | + | + | + | + | - | + |  | 17 | -44.2 | 125.5 | 3.8 | 0.03 | 0.22 | 0.27 |
|  | 0.393 | -0.049 | -0.015 | + | + |  | + | - | + |  | 17 | -44.3 | 125.6 | 3.9 | 0.03 | 0.22 | 0.28 |
|  | 0.362 | -0.048 | -0.015 | + |  |  | + | - | + |  | 16 | -45.5 | 125.6 | 3.9 | 0.03 | 0.21 | 0.26 |
|  | 0.408 | -0.057 | -0.019 | + | + |  |  | - | + | -0.002 | 17 | -44.4 | 125.9 | 4.2 | 0.02 | 0.22 | 0.28 |
|  | 0.378 | -0.056 | -0.019 | + |  |  |  | - | + | -0.002 | 16 | -45.6 | 125.9 | 4.2 | 0.02 | 0.21 | 0.26 |
|  | 0.378 | -0.048 | -0.015 | + |  | + | + | - | + |  | 17 | -45.2 | 127.5 | 5.8 | 0.01 | 0.21 | 0.26 |
|  | 0.408 | -0.049 | -0.015 | + | + | + | + | - | + |  | 18 | -44.0 | 127.5 | 5.8 | 0.01 | 0.22 | 0.27 |
|  | 0.394 | -0.056 | -0.019 | + |  | + |  | - | + | -0.002 | 17 | -45.4 | 127.8 | 6.1 | 0.01 | 0.21 | 0.26 |
|  | 0.424 | -0.057 | -0.019 | + | + | + |  | - | + | -0.002 | 18 | -44.2 | 127.8 | 6.1 | 0.01 | 0.22 | 0.28 |
|  | 0.393 | -0.049 | -0.014 | + | + |  | + | - | + | 0.001 | 18 | -44.3 | 128.0 | 6.3 | 0.01 | 0.22 | 0.28 |
|  | 0.362 | -0.048 | -0.014 | + |  |  | + | - | + | 0.001 | 17 | -45.5 | 128.0 | 6.3 | 0.01 | 0.21 | 0.26 |
|  |  | **(1)** | 0.29 | **(1)** | 0.47 | 0.3 | 0.3 | - | **0.99** | 0.09 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **250** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 0.380 | -0.102 |  | + |  |  |  | - | + |  | 14 | -44.7 | 119.5 | 0.0 | 0.22 | 0.21 | 0.26 |
|  | 0.407 | -0.101 |  | + | + |  |  | - | + |  | 15 | -43.8 | 120.0 | 0.5 | 0.17 | 0.22 | 0.27 |
|  | 0.392 | -0.101 |  | + |  | + |  | - | + |  | 15 | -44.6 | 121.6 | 2.0 | 0.08 | 0.21 | 0.26 |
|  | 0.380 | -0.107 | -0.012 | + |  |  |  | - | + |  | 15 | -44.6 | 121.7 | 2.1 | 0.07 | 0.21 | 0.26 |
|  | 0.390 | -0.102 |  | + |  |  | + | - | + |  | 15 | -44.7 | 121.7 | 2.2 | 0.07 | 0.21 | 0.26 |
|  | 0.418 | -0.101 |  | + | + | + |  | - | + |  | 16 | -43.7 | 122.1 | 2.5 | 0.06 | 0.22 | 0.27 |
|  | 0.417 | -0.101 |  | + | + |  | + | - | + |  | 16 | -43.7 | 122.2 | 2.6 | 0.06 | 0.22 | 0.27 |
|  | 0.407 | -0.106 | -0.011 | + | + |  |  | - | + |  | 16 | -43.7 | 122.2 | 2.6 | 0.06 | 0.22 | 0.27 |
|  | 0.392 | -0.107 | -0.012 | + |  | + |  | - | + |  | 16 | -44.5 | 123.7 | 4.2 | 0.03 | 0.21 | 0.26 |
|  | 0.401 | -0.101 |  | + |  | + | + | - | + |  | 16 | -44.5 | 123.8 | 4.2 | 0.03 | 0.21 | 0.26 |
|  | 0.391 | -0.107 | -0.013 | + |  |  | + | - | + |  | 16 | -44.6 | 123.8 | 4.3 | 0.03 | 0.21 | 0.26 |
|  | 0.381 | -0.106 | -0.010 | + |  |  |  | - | + | 0.004 | 16 | -44.6 | 124.0 | 4.5 | 0.02 | 0.21 | 0.26 |
|  | 0.428 | -0.101 |  | + | + | + | + | - | + |  | 17 | -43.6 | 124.3 | 4.7 | 0.02 | 0.22 | 0.27 |
|  | 0.418 | -0.105 | -0.011 | + | + | + |  | - | + |  | 17 | -43.6 | 124.3 | 4.7 | 0.02 | 0.22 | 0.27 |
|  | 0.418 | -0.106 | -0.012 | + | + |  | + | - | + |  | 17 | -43.6 | 124.4 | 4.8 | 0.02 | 0.22 | 0.27 |
|  | 0.407 | -0.105 | -0.009 | + | + |  |  | - | + | 0.004 | 17 | -43.7 | 124.5 | 5.0 | 0.02 | 0.22 | 0.27 |
|  | 0.402 | -0.107 | -0.013 | + |  | + | + | - | + |  | 17 | -44.4 | 125.9 | 6.4 | 0.01 | 0.21 | 0.26 |
|  | 0.393 | -0.106 | -0.010 | + |  | + |  | - | + | 0.005 | 17 | -44.5 | 126.1 | 6.5 | 0.01 | 0.21 | 0.26 |
|  | 0.395 | -0.105 | -0.008 | + |  |  | + | - | + | 0.011 | 17 | -44.5 | 126.1 | 6.6 | 0.01 | 0.21 | 0.26 |
|  | 0.429 | -0.106 | -0.012 | + | + | + | + | - | + |  | 18 | -43.5 | 126.5 | 6.9 | 0.01 | 0.22 | 0.27 |
|  |  | **(1)** | 0.31 | **(1)** | 0.44 | 0.26 | 0.25 | - | **1** | 0.07 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **500** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 0.378 | -0.098 |  | + |  |  |  | - | + |  | 14 | -47.7 | 125.6 | 0.0 | 0.16 | 0.20 | 0.25 |
|  | 0.408 | -0.099 |  | + | + |  |  | - | + |  | 15 | -46.6 | 125.7 | 0.1 | 0.15 | 0.21 | 0.27 |
|  | 0.394 | -0.098 |  | + |  | + |  | - | + |  | 15 | -47.5 | 127.4 | 1.8 | 0.06 | 0.20 | 0.25 |
|  | 0.396 | -0.102 | 0.001 | + |  |  |  | - | + | 0.065 | 16 | -46.4 | 127.4 | 1.9 | 0.06 | 0.21 | 0.24 |
|  | 0.424 | -0.099 |  | + | + | + |  | - | + |  | 16 | -46.4 | 127.5 | 2.0 | 0.06 | 0.21 | 0.26 |
|  | 0.378 | -0.101 | -0.012 | + |  |  |  | - | + |  | 15 | -47.6 | 127.7 | 2.1 | 0.06 | 0.20 | 0.25 |
|  | 0.425 | -0.102 | 0.002 | + | + |  |  | - | + | 0.064 | 17 | -45.3 | 127.7 | 2.1 | 0.06 | 0.22 | 0.26 |
|  | 0.388 | -0.100 |  | + |  |  | + | - | + |  | 15 | -47.7 | 127.7 | 2.2 | 0.05 | 0.20 | 0.25 |
|  | 0.408 | -0.102 | -0.012 | + | + |  |  | - | + |  | 16 | -46.5 | 127.8 | 2.3 | 0.05 | 0.21 | 0.26 |
|  | 0.419 | -0.100 |  | + | + |  | + | - | + |  | 16 | -46.6 | 127.8 | 2.3 | 0.05 | 0.21 | 0.27 |
|  | 0.412 | -0.102 | 0.001 | + |  | + |  | - | + | 0.065 | 17 | -46.1 | 129.3 | 3.7 | 0.02 | 0.21 | 0.24 |
|  | 0.394 | -0.102 | -0.012 | + |  | + |  | - | + |  | 16 | -47.4 | 129.5 | 4.0 | 0.02 | 0.20 | 0.25 |
|  | 0.442 | -0.102 | 0.002 | + | + | + |  | - | + | 0.064 | 18 | -45.0 | 129.5 | 4.0 | 0.02 | 0.22 | 0.26 |
|  | 0.403 | -0.100 |  | + |  | + | + | - | + |  | 16 | -47.4 | 129.6 | 4.0 | 0.02 | 0.20 | 0.25 |
|  | 0.406 | -0.104 | -0.0001 | + |  |  | + | - | + | 0.064 | 17 | -46.3 | 129.6 | 4.1 | 0.02 | 0.21 | 0.25 |
|  | 0.424 | -0.102 | -0.012 | + | + | + |  | - | + |  | 17 | -46.3 | 129.7 | 4.1 | 0.02 | 0.21 | 0.26 |
|  | 0.434 | -0.100 |  | + | + | + | + | - | + |  | 17 | -46.3 | 129.7 | 4.2 | 0.02 | 0.21 | 0.27 |
|  | 0.390 | -0.104 | -0.013 | + |  |  | + | - | + |  | 16 | -47.5 | 129.8 | 4.3 | 0.02 | 0.20 | 0.25 |
|  | 0.435 | -0.104 | 0.000 | + | + |  | + | - | + | 0.063 | 18 | -45.2 | 129.9 | 4.4 | 0.02 | 0.22 | 0.26 |
|  | 0.420 | -0.104 | -0.013 | + | + |  | + | - | + |  | 17 | -46.4 | 130.0 | 4.4 | 0.02 | 0.21 | 0.27 |
|  | 0.421 | -0.104 | -0.0001 | + |  | + | + | - | + | 0.065 | 18 | -46.0 | 131.5 | 6.0 | 0.01 | 0.21 | 0.25 |
|  | 0.405 | -0.104 | -0.013 | + |  | + | + | - | + |  | 17 | -47.3 | 131.7 | 6.1 | 0.01 | 0.20 | 0.25 |
|  | 0.451 | -0.104 | 0.0004 | + | + | + | + | - | + | 0.064 | 19 | -45.0 | 131.8 | 6.2 | 0.01 | 0.22 | 0.26 |
|  | 0.435 | -0.105 | -0.013 | + | + | + | + | - | + |  | 18 | -46.2 | 131.9 | 6.3 | 0.01 | 0.21 | 0.27 |
|  |  | **(1)** | 0.42 | **(1)** | 0.48 | 0.28 | 0.25 | - | **1** | 0.22 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1000** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 0.378 | -0.116 | -0.044 | + |  |  |  | - | + |  | 15 | -50.0 | 132.3 | 0.0 | 0.11 | 0.18 | 0.21 |
|  | 0.378 | -0.095 |  | + |  |  |  | - | + |  | 14 | -51.1 | 132.4 | 0.0 | 0.11 | 0.18 | 0.22 |
|  | 0.407 | -0.095 |  | + | + |  |  | - | + |  | 15 | -50.1 | 132.6 | 0.3 | 0.10 | 0.19 | 0.24 |
|  | 0.407 | -0.115 | -0.043 | + | + |  |  | - | + |  | 16 | -49.0 | 132.8 | 0.4 | 0.09 | 0.19 | 0.23 |
|  | 0.401 | -0.124 | -0.051 | + |  |  | + | - | + |  | 16 | -49.5 | 133.8 | 1.5 | 0.05 | 0.19 | 0.22 |
|  | 0.394 | -0.116 | -0.045 | + |  | + |  | - | + |  | 16 | -49.7 | 134.2 | 1.8 | 0.05 | 0.19 | 0.21 |
|  | 0.430 | -0.124 | -0.050 | + | + |  | + | - | + |  | 17 | -48.6 | 134.2 | 1.9 | 0.04 | 0.20 | 0.23 |
|  | 0.393 | -0.095 |  | + |  | + |  | - | + |  | 15 | -50.9 | 134.2 | 1.9 | 0.04 | 0.18 | 0.22 |
|  | 0.391 | -0.098 |  | + |  |  | + | - | + |  | 15 | -51.0 | 134.5 | 2.1 | 0.04 | 0.18 | 0.23 |
|  | 0.422 | -0.095 |  | + | + | + |  | - | + |  | 16 | -49.9 | 134.5 | 2.2 | 0.04 | 0.19 | 0.24 |
|  | 0.422 | -0.116 | -0.044 | + | + | + |  | - | + |  | 17 | -48.8 | 134.6 | 2.3 | 0.04 | 0.19 | 0.23 |
|  | 0.375 | -0.119 | -0.048 | + |  |  |  | - | + | -0.006 | 16 | -50.0 | 134.7 | 2.3 | 0.04 | 0.18 | 0.21 |
|  | 0.421 | -0.098 |  | + | + |  | + | - | + |  | 16 | -50.0 | 134.7 | 2.4 | 0.03 | 0.19 | 0.24 |
|  | 0.404 | -0.118 | -0.047 | + | + |  |  | - | + | -0.006 | 17 | -49.0 | 135.1 | 2.7 | 0.03 | 0.19 | 0.23 |
|  | 0.417 | -0.124 | -0.051 | + |  | + | + | - | + |  | 17 | -49.3 | 135.7 | 3.3 | 0.02 | 0.19 | 0.22 |
|  | 0.397 | -0.129 | -0.057 | + |  |  | + | - | + | -0.012 | 17 | -49.5 | 136.1 | 3.7 | 0.02 | 0.19 | 0.22 |
|  | 0.446 | -0.124 | -0.051 | + | + | + | + | - | + |  | 18 | -48.3 | 136.1 | 3.8 | 0.02 | 0.20 | 0.23 |
|  | 0.406 | -0.098 |  | + |  | + | + | - | + |  | 16 | -50.8 | 136.4 | 4.0 | 0.02 | 0.18 | 0.23 |
|  | 0.391 | -0.119 | -0.048 | + |  | + |  | - | + | -0.007 | 17 | -49.7 | 136.5 | 4.2 | 0.01 | 0.19 | 0.21 |
|  | 0.426 | -0.129 | -0.057 | + | + |  | + | - | + | -0.012 | 18 | -48.5 | 136.5 | 4.2 | 0.01 | 0.20 | 0.23 |
|  | 0.435 | -0.098 |  | + | + | + | + | - | + |  | 17 | -49.8 | 136.7 | 4.3 | 0.01 | 0.19 | 0.24 |
|  | 0.419 | -0.119 | -0.047 | + | + | + |  | - | + | -0.007 | 18 | -48.8 | 137.0 | 4.6 | 0.01 | 0.19 | 0.23 |
|  | 0.367 |  |  | + |  |  |  | - |  |  | 11 | -56.9 | 137.0 | 4.7 | 0.01 | 0.15 | 0.20 |
|  | 0.400 |  |  | + | + |  |  | - |  |  | 12 | -55.8 | 137.1 | 4.8 | 0.01 | 0.16 | 0.21 |
|  | 0.413 | -0.130 | -0.058 | + |  | + | + | - | + | -0.012 | 18 | -49.2 | 138.0 | 5.6 | 0.01 | 0.19 | 0.22 |
|  | 0.367 |  | -0.029 | + |  |  |  | - |  |  | 12 | -56.2 | 138.0 | 5.6 | 0.01 | 0.16 | 0.20 |
|  | 0.399 |  | -0.029 | + | + |  |  | - |  |  | 13 | -55.1 | 138.1 | 5.8 | 0.01 | 0.17 | 0.21 |
|  | 0.442 | -0.130 | -0.057 | + | + | + | + | - | + | -0.012 | 19 | -48.3 | 138.4 | 6.1 | 0.01 | 0.20 | 0.23 |
|  | 0.383 |  |  | + |  | + |  | - |  |  | 12 | -56.7 | 138.9 | 6.5 | 0.00 | 0.15 | 0.20 |
|  | 0.415 |  |  | + | + | + |  | - |  |  | 13 | -55.6 | 139.0 | 6.7 | 0.00 | 0.16 | 0.21 |
|  | 0.380 |  |  | + |  |  | + | - |  |  | 12 | -56.8 | 139.0 | 6.7 | 0.00 | 0.15 | 0.20 |
|  | 0.414 |  |  | + | + |  | + | - |  |  | 13 | -55.7 | 139.1 | 6.8 | 0.00 | 0.16 | 0.22 |
|  | 0.368 | -0.004 |  | + |  |  |  | - |  |  | 12 | -56.9 | 139.3 | 6.9 | 0.00 | 0.15 | 0.20 |
|  |  | **(0.94)** | 0.57 | **(1)** | 0.46 | 0.28 | 0.3 | - | **0.91** | 0.13 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **2000** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 0.379 | -0.108 | -0.045 | + |  |  |  | - | + |  | 15 | -50.9 | 134.1 | 0.0 | 0.10 | 0.18 | 0.21 |
|  | 0.405 | -0.107 | -0.045 | + | + |  |  | - | + |  | 16 | -50.0 | 134.8 | 0.7 | 0.07 | 0.19 | 0.22 |
|  | 0.379 | -0.093 |  | + |  |  |  | - | + |  | 14 | -52.4 | 134.9 | 0.8 | 0.06 | 0.17 | 0.22 |
|  | 0.406 | -0.092 |  | + | + |  |  | - | + |  | 15 | -51.6 | 135.5 | 1.4 | 0.05 | 0.18 | 0.23 |
|  | 0.396 | -0.108 | -0.046 | + |  | + |  | - | + |  | 16 | -50.6 | 135.9 | 1.7 | 0.04 | 0.18 | 0.21 |
|  | 0.397 | -0.112 | -0.048 | + |  |  | + | - | + |  | 16 | -50.6 | 135.9 | 1.8 | 0.04 | 0.19 | 0.22 |
|  | 0.367 |  |  | + |  |  |  | - |  |  | 11 | -56.5 | 136.3 | 2.1 | 0.03 | 0.15 | 0.20 |
|  | 0.376 | -0.108 | -0.046 | + |  |  |  | - | + | -0.008 | 16 | -50.8 | 136.3 | 2.2 | 0.03 | 0.18 | 0.21 |
|  | 0.424 | -0.111 | -0.048 | + | + |  | + | - | + |  | 17 | -49.7 | 136.5 | 2.4 | 0.03 | 0.19 | 0.23 |
|  | 0.397 |  |  | + | + |  |  | - |  |  | 12 | -55.5 | 136.6 | 2.5 | 0.03 | 0.16 | 0.22 |
|  | 0.422 | -0.107 | -0.045 | + | + | + |  | - | + |  | 17 | -49.8 | 136.6 | 2.5 | 0.03 | 0.19 | 0.22 |
|  | 0.396 | -0.093 |  | + |  | + |  | - | + |  | 15 | -52.1 | 136.7 | 2.6 | 0.03 | 0.17 | 0.21 |
|  | 0.365 |  | -0.034 | + |  |  |  | - |  |  | 12 | -55.6 | 136.7 | 2.6 | 0.03 | 0.16 | 0.20 |
|  | 0.392 | -0.095 |  | + |  |  | + | - | + |  | 15 | -52.3 | 137.0 | 2.9 | 0.02 | 0.17 | 0.22 |
|  | 0.403 | -0.107 | -0.046 | + | + |  |  | - | + | -0.008 | 17 | -50.0 | 137.0 | 2.9 | 0.02 | 0.19 | 0.22 |
|  | 0.396 |  | -0.034 | + | + |  |  | - |  |  | 13 | -54.6 | 137.1 | 2.9 | 0.02 | 0.17 | 0.22 |
|  | 0.367 | -0.034 | -0.045 | + |  |  |  | - |  |  | 13 | -54.7 | 137.3 | 3.1 | 0.02 | 0.17 | 0.20 |
|  | 0.422 | -0.092 |  | + | + | + |  | - | + |  | 16 | -51.3 | 137.3 | 3.2 | 0.02 | 0.18 | 0.22 |
|  | 0.420 | -0.094 |  | + | + |  | + | - | + |  | 16 | -51.4 | 137.6 | 3.4 | 0.02 | 0.18 | 0.23 |
|  | 0.414 | -0.112 | -0.048 | + |  | + | + | - | + |  | 17 | -50.3 | 137.7 | 3.5 | 0.02 | 0.19 | 0.21 |
|  | 0.396 | -0.033 | -0.045 | + | + |  |  | - |  |  | 14 | -53.9 | 137.8 | 3.7 | 0.02 | 0.18 | 0.21 |
|  | 0.383 |  |  | + |  | + |  | - |  |  | 12 | -56.2 | 138.0 | 3.9 | 0.01 | 0.15 | 0.20 |
|  | 0.368 | -0.019 |  | + |  |  |  | - |  |  | 12 | -56.2 | 138.0 | 3.9 | 0.01 | 0.16 | 0.20 |
|  | 0.394 | -0.108 | -0.046 | + |  | + |  | - | + | -0.008 | 17 | -50.5 | 138.1 | 4.0 | 0.01 | 0.18 | 0.21 |
|  | 0.394 | -0.112 | -0.048 | + |  |  | + | - | + | -0.008 | 17 | -50.5 | 138.1 | 4.0 | 0.01 | 0.19 | 0.22 |
|  | 0.378 |  |  | + |  |  | + | - |  |  | 12 | -56.4 | 138.3 | 4.2 | 0.01 | 0.16 | 0.21 |
|  | 0.441 | -0.111 | -0.048 | + | + | + | + | - | + |  | 18 | -49.5 | 138.4 | 4.3 | 0.01 | 0.20 | 0.22 |
|  | 0.413 |  |  | + | + | + |  | - |  |  | 13 | -55.3 | 138.4 | 4.3 | 0.01 | 0.16 | 0.21 |
|  | 0.398 | -0.017 |  | + | + |  |  | - |  |  | 13 | -55.3 | 138.4 | 4.3 | 0.01 | 0.16 | 0.21 |
|  | 0.381 |  | -0.034 | + |  | + |  | - |  |  | 13 | -55.3 | 138.5 | 4.4 | 0.01 | 0.16 | 0.20 |
|  | 0.411 |  |  | + | + |  | + | - |  |  | 13 | -55.4 | 138.6 | 4.5 | 0.01 | 0.16 | 0.22 |
|  | 0.379 |  | -0.035 | + |  |  | + | - |  |  | 13 | -55.4 | 138.7 | 4.5 | 0.01 | 0.17 | 0.21 |
|  | 0.409 | -0.095 |  | + |  | + | + | - | + |  | 16 | -52.0 | 138.8 | 4.6 | 0.01 | 0.17 | 0.22 |
|  | 0.422 | -0.111 | -0.048 | + | + |  | + | - | + | -0.007 | 18 | -49.7 | 138.8 | 4.7 | 0.01 | 0.19 | 0.23 |
|  | 0.419 | -0.107 | -0.046 | + | + | + |  | - | + | -0.008 | 18 | -49.7 | 138.9 | 4.7 | 0.01 | 0.19 | 0.22 |
|  | 0.387 | -0.038 | -0.048 | + |  |  | + | - |  |  | 14 | -54.4 | 138.9 | 4.8 | 0.01 | 0.18 | 0.20 |
|  | 0.411 |  | -0.034 | + | + | + |  | - |  |  | 14 | -54.4 | 138.9 | 4.8 | 0.01 | 0.17 | 0.21 |
|  | 0.411 |  | -0.035 | + | + |  | + | - |  |  | 14 | -54.4 | 139.0 | 4.8 | 0.01 | 0.17 | 0.22 |
|  | 0.384 | -0.035 | -0.045 | + |  | + |  | - |  |  | 14 | -54.5 | 139.0 | 4.9 | 0.01 | 0.17 | 0.19 |
|  | 0.418 | -0.037 | -0.047 | + | + |  | + | - |  |  | 15 | -53.5 | 139.4 | 5.3 | 0.01 | 0.18 | 0.21 |
|  | 0.436 | -0.094 |  | + | + | + | + | - | + |  | 17 | -51.2 | 139.4 | 5.3 | 0.01 | 0.18 | 0.23 |
|  | 0.364 | -0.034 | -0.046 | + |  |  |  | - |  | -0.008 | 14 | -54.7 | 139.4 | 5.3 | 0.01 | 0.17 | 0.20 |
|  | 0.413 | -0.033 | -0.045 | + | + | + |  | - |  |  | 15 | -53.6 | 139.6 | 5.5 | 0.01 | 0.18 | 0.20 |
|  | 0.385 | -0.019 |  | + |  | + |  | - |  |  | 13 | -56.0 | 139.7 | 5.6 | 0.01 | 0.16 | 0.20 |
|  | 0.411 | -0.112 | -0.048 | + |  | + | + | - | + | -0.007 | 18 | -50.2 | 139.9 | 5.8 | 0.01 | 0.19 | 0.21 |
|  | 0.383 | -0.021 |  | + |  |  | + | - |  |  | 13 | -56.1 | 140.0 | 5.8 | 0.01 | 0.16 | 0.20 |
|  | 0.393 | -0.032 | -0.045 | + | + |  |  | - |  | -0.008 | 15 | -53.8 | 140.0 | 5.9 | 0.01 | 0.18 | 0.21 |
|  | 0.394 |  |  | + |  | + | + | - |  |  | 13 | -56.1 | 140.1 | 5.9 | 0.00 | 0.16 | 0.21 |
|  | 0.414 | -0.018 |  | + | + | + |  | - |  |  | 14 | -55.1 | 140.2 | 6.1 | 0.00 | 0.16 | 0.21 |
|  | 0.414 | -0.019 |  | + | + |  | + | - |  |  | 14 | -55.1 | 140.4 | 6.2 | 0.00 | 0.17 | 0.22 |
|  | 0.426 |  |  | + | + | + | + | - |  |  | 14 | -55.2 | 140.5 | 6.3 | 0.00 | 0.16 | 0.22 |
|  | 0.394 |  | -0.035 | + |  | + | + | - |  |  | 14 | -55.2 | 140.5 | 6.4 | 0.00 | 0.17 | 0.21 |
|  | 0.404 | -0.039 | -0.048 | + |  | + | + | - |  |  | 15 | -54.1 | 140.7 | 6.5 | 0.00 | 0.18 | 0.20 |
|  | 0.438 | -0.111 | -0.048 | + | + | + | + | - | + | -0.007 | 19 | -49.4 | 140.7 | 6.5 | 0.00 | 0.20 | 0.22 |
|  | 0.426 |  | -0.035 | + | + | + | + | - |  |  | 15 | -54.2 | 140.9 | 6.7 | 0.00 | 0.18 | 0.22 |
|  | 0.384 | -0.037 | -0.048 | + |  |  | + | - |  | -0.007 | 15 | -54.3 | 141.1 | 7.0 | 0.00 | 0.18 | 0.20 |
|  |  | **(0.79)** | 0.62 | **(1)** | 0.43 | 0.29 | 0.28 | - | **0.65** | 0.13 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **3000** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 0.378 | -0.123 |  | + |  |  |  | - | + |  | 14 | -49.9 | 129.9 | 0.0 | 0.11 | 0.18 | 0.23 |
|  | 0.407 | -0.123 |  | + | + |  |  | - | + |  | 15 | -48.9 | 130.2 | 0.4 | 0.09 | 0.19 | 0.24 |
|  | 0.378 | -0.131 | -0.034 | + |  |  |  | - | + |  | 15 | -49.0 | 130.4 | 0.5 | 0.09 | 0.19 | 0.22 |
|  | 0.368 | -0.140 | -0.037 | + |  |  |  | - | + | -0.042 | 16 | -47.9 | 130.6 | 0.7 | 0.08 | 0.20 | 0.22 |
|  | 0.406 | -0.131 | -0.033 | + | + |  |  | - | + |  | 16 | -48.1 | 130.8 | 1.0 | 0.07 | 0.20 | 0.23 |
|  | 0.395 | -0.140 | -0.037 | + | + |  |  | - | + | -0.042 | 17 | -47.0 | 131.1 | 1.2 | 0.06 | 0.20 | 0.23 |
|  | 0.397 | -0.123 |  | + |  | + |  | - | + |  | 15 | -49.5 | 131.4 | 1.6 | 0.05 | 0.18 | 0.22 |
|  | 0.425 | -0.123 |  | + | + | + |  | - | + |  | 16 | -48.6 | 131.9 | 2.0 | 0.04 | 0.19 | 0.23 |
|  | 0.391 | -0.124 |  | + |  |  | + | - | + |  | 15 | -49.8 | 131.9 | 2.1 | 0.04 | 0.19 | 0.23 |
|  | 0.397 | -0.131 | -0.034 | + |  | + |  | - | + |  | 16 | -48.6 | 132.0 | 2.1 | 0.04 | 0.19 | 0.22 |
|  | 0.387 | -0.140 | -0.037 | + |  | + |  | - | + | -0.042 | 17 | -47.5 | 132.2 | 2.3 | 0.04 | 0.20 | 0.22 |
|  | 0.421 | -0.124 |  | + | + |  | + | - | + |  | 16 | -48.8 | 132.3 | 2.4 | 0.03 | 0.19 | 0.24 |
|  | 0.393 | -0.133 | -0.035 | + |  |  | + | - | + |  | 16 | -48.8 | 132.3 | 2.5 | 0.03 | 0.19 | 0.23 |
|  | 0.384 | -0.143 | -0.038 | + |  |  | + | - | + | -0.043 | 17 | -47.7 | 132.4 | 2.5 | 0.03 | 0.20 | 0.22 |
|  | 0.424 | -0.131 | -0.033 | + | + | + |  | - | + |  | 17 | -47.7 | 132.5 | 2.6 | 0.03 | 0.20 | 0.23 |
|  | 0.414 | -0.140 | -0.037 | + | + | + |  | - | + | -0.042 | 18 | -46.6 | 132.7 | 2.9 | 0.03 | 0.21 | 0.23 |
|  | 0.422 | -0.133 | -0.035 | + | + |  | + | - | + |  | 17 | -47.8 | 132.8 | 2.9 | 0.03 | 0.20 | 0.24 |
|  | 0.412 | -0.142 | -0.038 | + | + |  | + | - | + | -0.043 | 18 | -46.7 | 132.9 | 3.0 | 0.02 | 0.21 | 0.23 |
|  | 0.409 | -0.124 |  | + |  | + | + | - | + |  | 16 | -49.4 | 133.5 | 3.7 | 0.02 | 0.19 | 0.23 |
|  | 0.438 | -0.124 |  | + | + | + | + | - | + |  | 17 | -48.4 | 134.0 | 4.1 | 0.01 | 0.20 | 0.24 |
|  | 0.411 | -0.133 | -0.035 | + |  | + | + | - | + |  | 17 | -48.4 | 134.0 | 4.1 | 0.01 | 0.20 | 0.22 |
|  | 0.402 | -0.142 | -0.038 | + |  | + | + | - | + | -0.043 | 18 | -47.3 | 134.0 | 4.2 | 0.01 | 0.20 | 0.22 |
|  | 0.440 | -0.133 | -0.035 | + | + | + | + | - | + |  | 18 | -47.5 | 134.5 | 4.6 | 0.01 | 0.20 | 0.23 |
|  | 0.430 | -0.142 | -0.038 | + | + | + | + | - | + | -0.043 | 19 | -46.4 | 134.6 | 4.7 | 0.01 | 0.21 | 0.23 |
|  |  | **(0.98)** | 0.59 | **(1)** | 0.44 | 0.31 | 0.27 | - | **0.97** | 0.28 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Predator density* | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **100** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -0.576 | 0.276 | 0.155 | + |  |  | + | 0.253 | + |  | 13 | -316.3 | 660.5 | 0.0 | 0.15 | 0.27 | 0.29 |
|  | -0.527 | 0.242 |  | + |  |  | + | 0.258 | + |  | 12 | -317.8 | 661.0 | 0.6 | 0.11 | 0.25 | 0.28 |
|  | -0.596 | 0.320 | 0.153 | + |  |  | + | 0.257 |  |  | 11 | -319.2 | 661.7 | 1.3 | 0.08 | 0.27 | 0.29 |
|  | -0.623 | 0.286 | 0.157 | + | + |  | + | 0.241 | + |  | 14 | -316.0 | 662.1 | 1.6 | 0.07 | 0.28 | 0.30 |
|  | -0.550 | 0.290 |  | + |  |  | + | 0.262 |  |  | 10 | -320.6 | 662.3 | 1.8 | 0.06 | 0.25 | 0.27 |
|  | -0.556 | 0.273 | 0.154 | + |  | + | + | 0.255 | + |  | 14 | -316.3 | 662.6 | 2.2 | 0.05 | 0.27 | 0.29 |
|  | -0.573 | 0.251 |  | + | + |  | + | 0.246 | + |  | 13 | -317.4 | 662.6 | 2.2 | 0.05 | 0.25 | 0.28 |
|  | -0.569 | 0.276 | 0.148 | + |  |  | + | 0.251 | + | -0.017 | 14 | -316.3 | 662.7 | 2.2 | 0.05 | 0.28 | 0.29 |
|  | -0.505 | 0.238 |  | + |  | + | + | 0.260 | + |  | 13 | -317.7 | 663.1 | 2.7 | 0.04 | 0.25 | 0.28 |
|  | -0.644 | 0.322 | 0.155 | + | + |  | + | 0.246 |  |  | 12 | -318.8 | 663.2 | 2.7 | 0.04 | 0.27 | 0.29 |
|  | -0.596 | 0.292 |  | + | + |  | + | 0.251 |  |  | 11 | -320.2 | 663.7 | 3.3 | 0.03 | 0.25 | 0.28 |
|  | -0.578 | 0.320 | 0.152 | + |  | + | + | 0.259 |  |  | 12 | -319.2 | 663.9 | 3.4 | 0.03 | 0.27 | 0.29 |
|  | -0.588 | 0.319 | 0.146 | + |  |  | + | 0.255 |  | -0.016 | 12 | -319.2 | 663.9 | 3.5 | 0.03 | 0.27 | 0.29 |
|  | -0.604 | 0.283 | 0.156 | + | + | + | + | 0.243 | + |  | 15 | -315.9 | 664.2 | 3.8 | 0.02 | 0.28 | 0.30 |
|  | -0.615 | 0.285 | 0.149 | + | + |  | + | 0.238 | + | -0.020 | 15 | -315.9 | 664.3 | 3.8 | 0.02 | 0.28 | 0.30 |
|  | -0.529 | 0.290 |  | + |  | + | + | 0.264 |  |  | 11 | -320.5 | 664.3 | 3.8 | 0.02 | 0.25 | 0.27 |
|  | -0.551 | 0.248 |  | + | + | + | + | 0.248 | + |  | 14 | -317.3 | 664.8 | 4.3 | 0.02 | 0.25 | 0.28 |
|  | -0.549 | 0.273 | 0.147 | + |  | + | + | 0.253 | + | -0.016 | 15 | -316.2 | 664.9 | 4.4 | 0.02 | 0.28 | 0.29 |
|  | -0.325 | 0.137 |  | + |  |  |  | 0.259 | + |  | 11 | -320.9 | 665.0 | 4.5 | 0.02 | 0.22 | 0.28 |
|  | -0.627 | 0.322 | 0.154 | + | + | + | + | 0.248 |  |  | 13 | -318.8 | 665.3 | 4.9 | 0.01 | 0.27 | 0.29 |
|  | -0.636 | 0.320 | 0.147 | + | + |  | + | 0.243 |  | -0.020 | 13 | -318.8 | 665.4 | 4.9 | 0.01 | 0.27 | 0.29 |
|  | -0.576 | 0.292 |  | + | + | + | + | 0.253 |  |  | 12 | -320.1 | 665.8 | 5.3 | 0.01 | 0.25 | 0.28 |
|  | -0.571 | 0.319 | 0.145 | + |  | + | + | 0.257 |  | -0.016 | 13 | -319.1 | 666.1 | 5.6 | 0.01 | 0.27 | 0.29 |
|  | -0.350 | 0.189 |  | + |  |  |  | 0.264 |  |  | 9 | -323.7 | 666.2 | 5.7 | 0.01 | 0.22 | 0.28 |
|  | -0.597 | 0.282 | 0.148 | + | + | + | + | 0.240 | + | -0.019 | 16 | -315.9 | 666.5 | 6.0 | 0.01 | 0.28 | 0.30 |
|  | -0.326 | 0.154 | 0.079 | + |  |  |  | 0.258 | + |  | 12 | -320.5 | 666.6 | 6.1 | 0.01 | 0.24 | 0.29 |
|  | -0.370 | 0.146 |  | + | + |  |  | 0.247 | + |  | 12 | -320.5 | 666.6 | 6.1 | 0.01 | 0.22 | 0.28 |
|  | -0.300 | 0.132 |  | + |  | + |  | 0.262 | + |  | 12 | -320.7 | 667.0 | 6.5 | 0.01 | 0.22 | 0.28 |
|  |  | **0.99** | 0.61 | **1** | 0.32 | 0.26 | 0.36 | **1** | 0.64 | 0.15 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **250** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -0.353 | 0.271 | 0.168 | + |  |  |  | 0.270 |  |  | 10 | -321.7 | 664.4 | 0.0 | 0.12 | 0.26 | 0.29 |
|  | -0.437 | 0.272 | 0.183 | + |  |  | + | 0.276 |  |  | 11 | -321.1 | 665.5 | 1.0 | 0.07 | 0.26 | 0.29 |
|  | -0.352 | 0.217 |  | + |  |  |  | 0.274 |  |  | 9 | -323.4 | 665.6 | 1.2 | 0.07 | 0.23 | 0.27 |
|  | -0.400 | 0.273 | 0.170 | + | + |  |  | 0.259 |  |  | 11 | -321.3 | 665.9 | 1.5 | 0.06 | 0.26 | 0.29 |
|  | -0.336 | 0.283 | 0.208 | + |  |  |  | 0.270 |  | 0.073 | 11 | -321.5 | 666.3 | 1.9 | 0.05 | 0.26 | 0.28 |
|  | -0.332 | 0.270 | 0.167 | + |  | + |  | 0.272 |  |  | 11 | -321.6 | 666.5 | 2.0 | 0.04 | 0.26 | 0.29 |
|  | -0.354 | 0.286 | 0.171 | + |  |  |  | 0.265 | + |  | 12 | -320.6 | 666.8 | 2.4 | 0.04 | 0.27 | 0.29 |
|  | -0.482 | 0.274 | 0.185 | + | + |  | + | 0.265 |  |  | 12 | -320.7 | 667.0 | 2.6 | 0.03 | 0.27 | 0.29 |
|  | -0.398 | 0.219 |  | + | + |  |  | 0.263 |  |  | 10 | -323.0 | 667.1 | 2.7 | 0.03 | 0.23 | 0.28 |
|  | -0.417 | 0.217 |  | + |  |  | + | 0.279 |  |  | 10 | -323.0 | 667.1 | 2.7 | 0.03 | 0.23 | 0.27 |
|  | -0.416 | 0.271 | 0.182 | + |  | + | + | 0.277 |  |  | 12 | -321.0 | 667.5 | 3.1 | 0.03 | 0.26 | 0.29 |
|  | -0.329 | 0.217 |  | + |  | + |  | 0.276 |  |  | 10 | -323.2 | 667.6 | 3.2 | 0.03 | 0.23 | 0.28 |
|  | -0.423 | 0.277 | 0.198 | + |  |  | + | 0.275 |  | 0.029 | 12 | -321.1 | 667.7 | 3.2 | 0.02 | 0.26 | 0.29 |
|  | -0.384 | 0.285 | 0.210 | + | + |  |  | 0.259 |  | 0.073 | 12 | -321.1 | 667.8 | 3.4 | 0.02 | 0.26 | 0.29 |
|  | -0.439 | 0.287 | 0.187 | + |  |  | + | 0.271 | + |  | 13 | -320.0 | 667.9 | 3.5 | 0.02 | 0.27 | 0.29 |
|  | -0.380 | 0.272 | 0.169 | + | + | + |  | 0.261 |  |  | 12 | -321.2 | 668.0 | 3.5 | 0.02 | 0.26 | 0.29 |
|  | -0.352 | 0.229 |  | + |  |  |  | 0.268 | + |  | 11 | -322.4 | 668.0 | 3.6 | 0.02 | 0.23 | 0.28 |
|  | -0.358 |  |  | + |  |  |  | 0.280 |  |  | 8 | -325.8 | 668.2 | 3.8 | 0.02 | 0.17 | 0.28 |
|  | -0.402 | 0.293 | 0.173 | + | + |  |  | 0.254 | + |  | 13 | -320.3 | 668.4 | 4.0 | 0.02 | 0.27 | 0.30 |
|  | -0.315 | 0.282 | 0.207 | + |  | + |  | 0.272 |  | 0.073 | 12 | -321.4 | 668.4 | 4.0 | 0.02 | 0.26 | 0.29 |
|  | -0.461 | 0.219 |  | + | + |  | + | 0.268 |  |  | 11 | -322.7 | 668.7 | 4.2 | 0.01 | 0.23 | 0.27 |
|  | -0.338 | 0.298 | 0.210 | + |  |  |  | 0.265 | + | 0.071 | 13 | -320.5 | 668.8 | 4.4 | 0.01 | 0.26 | 0.29 |
|  | -0.333 | 0.283 | 0.170 | + |  | + |  | 0.267 | + |  | 13 | -320.6 | 668.9 | 4.5 | 0.01 | 0.27 | 0.29 |
|  | -0.375 | 0.219 |  | + | + | + |  | 0.266 |  |  | 11 | -322.9 | 669.1 | 4.7 | 0.01 | 0.23 | 0.28 |
|  | -0.462 | 0.274 | 0.184 | + | + | + | + | 0.267 |  |  | 13 | -320.6 | 669.1 | 4.7 | 0.01 | 0.27 | 0.29 |
|  | -0.394 | 0.216 |  | + |  | + | + | 0.281 |  |  | 11 | -322.9 | 669.1 | 4.7 | 0.01 | 0.23 | 0.27 |
|  | -0.468 | 0.279 | 0.200 | + | + |  | + | 0.265 |  | 0.029 | 13 | -320.7 | 669.2 | 4.8 | 0.01 | 0.27 | 0.29 |
|  | -0.485 | 0.293 | 0.188 | + | + |  | + | 0.260 | + |  | 14 | -319.7 | 669.5 | 5.1 | 0.01 | 0.27 | 0.30 |
|  | -0.359 |  | 0.107 | + |  |  |  | 0.279 |  |  | 9 | -325.3 | 669.6 | 5.1 | 0.01 | 0.19 | 0.29 |
|  | -0.398 | 0.235 |  | + | + |  |  | 0.257 | + |  | 12 | -322.0 | 669.6 | 5.2 | 0.01 | 0.24 | 0.28 |
|  | -0.417 | 0.227 |  | + |  |  | + | 0.274 | + |  | 12 | -322.0 | 669.6 | 5.2 | 0.01 | 0.24 | 0.28 |
|  | -0.402 |  |  | + | + |  |  | 0.270 |  |  | 9 | -325.4 | 669.7 | 5.3 | 0.01 | 0.17 | 0.29 |
|  | -0.402 | 0.276 | 0.197 | + |  | + | + | 0.277 |  | 0.030 | 13 | -321.0 | 669.7 | 5.3 | 0.01 | 0.26 | 0.29 |
|  | -0.426 |  |  | + |  |  | + | 0.285 |  |  | 9 | -325.5 | 669.8 | 5.4 | 0.01 | 0.18 | 0.28 |
|  | -0.363 | 0.285 | 0.209 | + | + | + |  | 0.261 |  | 0.073 | 13 | -321.0 | 669.9 | 5.5 | 0.01 | 0.26 | 0.29 |
|  | -0.418 | 0.283 | 0.186 | + |  | + | + | 0.273 | + |  | 14 | -320.0 | 670.0 | 5.6 | 0.01 | 0.27 | 0.29 |
|  | -0.329 | 0.225 |  | + |  | + |  | 0.271 | + |  | 12 | -322.3 | 670.1 | 5.7 | 0.01 | 0.23 | 0.28 |
|  | -0.333 |  |  | + |  | + |  | 0.283 |  |  | 9 | -325.6 | 670.1 | 5.7 | 0.01 | 0.18 | 0.29 |
|  | -0.426 | 0.291 | 0.200 | + |  |  | + | 0.271 | + | 0.027 | 14 | -320.0 | 670.1 | 5.7 | 0.01 | 0.27 | 0.29 |
|  | -0.385 | 0.305 | 0.212 | + | + |  |  | 0.254 | + | 0.071 | 14 | -320.1 | 670.3 | 5.9 | 0.01 | 0.27 | 0.30 |
|  | -0.381 | 0.290 | 0.172 | + | + | + |  | 0.256 | + |  | 14 | -320.2 | 670.5 | 6.1 | 0.01 | 0.27 | 0.30 |
|  | -0.439 | 0.218 |  | + | + | + | + | 0.271 |  |  | 12 | -322.6 | 670.7 | 6.3 | 0.01 | 0.23 | 0.28 |
|  | -0.445 |  | 0.128 | + |  |  | + | 0.285 |  |  | 10 | -324.9 | 670.9 | 6.5 | 0.00 | 0.19 | 0.29 |
|  | -0.317 | 0.294 | 0.209 | + |  | + |  | 0.267 | + | 0.072 | 14 | -320.4 | 670.9 | 6.5 | 0.00 | 0.27 | 0.29 |
|  | -0.403 |  | 0.107 | + | + |  |  | 0.269 |  |  | 10 | -325.0 | 671.1 | 6.7 | 0.00 | 0.19 | 0.29 |
|  | -0.462 | 0.234 |  | + | + |  | + | 0.263 | + |  | 13 | -321.7 | 671.2 | 6.8 | 0.00 | 0.24 | 0.28 |
|  | -0.448 | 0.279 | 0.199 | + | + | + | + | 0.267 |  | 0.030 | 14 | -320.6 | 671.3 | 6.9 | 0.00 | 0.27 | 0.29 |
|  | -0.469 |  |  | + | + |  | + | 0.275 |  |  | 10 | -325.2 | 671.4 | 7.0 | 0.00 | 0.18 | 0.29 |
|  |  | **0.86** | 0.53 | 1 | 0.25 | 0.3 | 0.37 | **1** | 0.19 | 0.11 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **500** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -0.358 |  |  | + |  |  |  | 0.280 |  |  | 8 | -325.8 | 668.2 | 0.0 | 0.11 | 0.17 | 0.28 |
|  | -0.360 | 0.132 |  | + |  |  |  | 0.285 |  |  | 9 | -325.0 | 668.9 | 0.7 | 0.08 | 0.19 | 0.28 |
|  | -0.402 |  |  | + | + |  |  | 0.270 |  |  | 9 | -325.4 | 669.7 | 1.5 | 0.05 | 0.17 | 0.29 |
|  | -0.360 | 0.170 | 0.132 | + |  |  |  | 0.284 |  |  | 10 | -324.3 | 669.8 | 1.6 | 0.05 | 0.21 | 0.28 |
|  | -0.426 |  |  | + |  |  | + | 0.285 |  |  | 9 | -325.5 | 669.8 | 1.6 | 0.05 | 0.18 | 0.28 |
|  | -0.461 | 0.162 |  | + |  |  | + | 0.293 |  |  | 10 | -324.4 | 669.9 | 1.7 | 0.05 | 0.20 | 0.28 |
|  | -0.358 |  | 0.083 | + |  |  |  | 0.277 |  |  | 9 | -325.5 | 669.9 | 1.7 | 0.05 | 0.18 | 0.29 |
|  | -0.333 |  |  | + |  | + |  | 0.283 |  |  | 9 | -325.6 | 670.1 | 1.9 | 0.04 | 0.18 | 0.29 |
|  | -0.478 | 0.202 | 0.147 | + |  |  | + | 0.292 |  |  | 11 | -323.6 | 670.4 | 2.2 | 0.04 | 0.22 | 0.28 |
|  | -0.403 | 0.133 |  | + | + |  |  | 0.275 |  |  | 10 | -324.7 | 670.5 | 2.3 | 0.04 | 0.19 | 0.28 |
|  | -0.335 | 0.132 |  | + |  | + |  | 0.288 |  |  | 10 | -324.9 | 670.9 | 2.7 | 0.03 | 0.19 | 0.27 |
|  | -0.403 | 0.171 | 0.133 | + | + |  |  | 0.273 |  |  | 11 | -324.0 | 671.3 | 3.1 | 0.02 | 0.21 | 0.28 |
|  | -0.469 |  |  | + | + |  | + | 0.275 |  |  | 10 | -325.2 | 671.4 | 3.2 | 0.02 | 0.18 | 0.29 |
|  | -0.402 |  | 0.084 | + | + |  |  | 0.267 |  |  | 10 | -325.2 | 671.5 | 3.3 | 0.02 | 0.18 | 0.29 |
|  | -0.432 |  | 0.089 | + |  |  | + | 0.282 |  |  | 10 | -325.2 | 671.5 | 3.3 | 0.02 | 0.19 | 0.29 |
|  | -0.503 | 0.163 |  | + | + |  | + | 0.283 |  |  | 11 | -324.1 | 671.5 | 3.3 | 0.02 | 0.20 | 0.28 |
|  | -0.377 |  |  | + | + | + |  | 0.272 |  |  | 10 | -325.3 | 671.7 | 3.5 | 0.02 | 0.18 | 0.29 |
|  | -0.336 | 0.170 | 0.131 | + |  | + |  | 0.286 |  |  | 11 | -324.2 | 671.7 | 3.5 | 0.02 | 0.21 | 0.28 |
|  | -0.402 |  |  | + |  | + | + | 0.287 |  |  | 10 | -325.3 | 671.8 | 3.6 | 0.02 | 0.18 | 0.28 |
|  | -0.381 | 0.174 | 0.118 | + |  |  |  | 0.282 |  | -0.078 | 11 | -324.2 | 671.8 | 3.6 | 0.02 | 0.22 | 0.28 |
|  | -0.333 |  | 0.083 | + |  | + |  | 0.280 |  |  | 10 | -325.4 | 671.9 | 3.7 | 0.02 | 0.19 | 0.29 |
|  | -0.436 | 0.162 |  | + |  | + | + | 0.296 |  |  | 11 | -324.3 | 671.9 | 3.7 | 0.02 | 0.20 | 0.28 |
|  | -0.520 | 0.203 | 0.148 | + | + |  | + | 0.282 |  |  | 12 | -323.3 | 672.0 | 3.8 | 0.02 | 0.22 | 0.28 |
|  | -0.454 | 0.202 | 0.146 | + |  | + | + | 0.294 |  |  | 12 | -323.4 | 672.4 | 4.2 | 0.01 | 0.22 | 0.28 |
|  | -0.379 | 0.132 |  | + | + | + |  | 0.278 |  |  | 11 | -324.6 | 672.5 | 4.3 | 0.01 | 0.19 | 0.28 |
|  | -0.490 | 0.203 | 0.137 | + |  |  | + | 0.291 |  | -0.053 | 12 | -323.5 | 672.6 | 4.4 | 0.01 | 0.22 | 0.28 |
|  | -0.371 | 0.202 |  | + |  |  |  | 0.285 | + |  | 11 | -324.7 | 672.6 | 4.4 | 0.01 | 0.20 | 0.28 |
|  | -0.474 |  | 0.090 | + | + |  | + | 0.272 |  |  | 11 | -324.9 | 673.1 | 4.9 | 0.01 | 0.19 | 0.29 |
|  | -0.426 | 0.174 | 0.119 | + | + |  |  | 0.272 |  | -0.080 | 12 | -323.9 | 673.4 | 5.2 | 0.01 | 0.22 | 0.29 |
|  | -0.379 | 0.170 | 0.132 | + | + | + |  | 0.276 |  |  | 12 | -323.9 | 673.4 | 5.2 | 0.01 | 0.21 | 0.29 |
|  | -0.444 |  |  | + | + | + | + | 0.277 |  |  | 11 | -325.0 | 673.4 | 5.2 | 0.01 | 0.18 | 0.29 |
|  | -0.407 |  | 0.089 | + |  | + | + | 0.285 |  |  | 11 | -325.1 | 673.4 | 5.2 | 0.01 | 0.19 | 0.29 |
|  | -0.377 |  | 0.084 | + | + | + |  | 0.270 |  |  | 11 | -325.1 | 673.4 | 5.2 | 0.01 | 0.19 | 0.29 |
|  | -0.371 | 0.240 | 0.132 | + |  |  |  | 0.283 | + |  | 12 | -324.0 | 673.5 | 5.3 | 0.01 | 0.22 | 0.29 |
|  | -0.479 | 0.163 |  | + | + | + | + | 0.286 |  |  | 12 | -324.0 | 673.5 | 5.3 | 0.01 | 0.19 | 0.27 |
|  | -0.473 | 0.231 |  | + |  |  | + | 0.293 | + |  | 12 | -324.0 | 673.6 | 5.4 | 0.01 | 0.21 | 0.28 |
|  | -0.357 | 0.174 | 0.117 | + |  | + |  | 0.285 |  | -0.077 | 12 | -324.1 | 673.8 | 5.6 | 0.01 | 0.22 | 0.29 |
|  | -0.496 | 0.202 | 0.147 | + | + | + | + | 0.284 |  |  | 13 | -323.1 | 674.1 | 5.9 | 0.01 | 0.22 | 0.28 |
|  | -0.490 | 0.270 | 0.147 | + |  |  | + | 0.292 | + |  | 13 | -323.2 | 674.2 | 6.0 | 0.01 | 0.23 | 0.29 |
|  | -0.415 | 0.205 |  | + | + |  |  | 0.274 | + |  | 12 | -324.3 | 674.2 | 6.0 | 0.01 | 0.19 | 0.28 |
|  | -0.533 | 0.204 | 0.138 | + | + |  | + | 0.281 |  | -0.055 | 13 | -323.2 | 674.2 | 6.0 | 0.01 | 0.22 | 0.29 |
|  | -0.466 | 0.203 | 0.137 | + |  | + | + | 0.293 |  | -0.052 | 13 | -323.4 | 674.6 | 6.4 | 0.00 | 0.22 | 0.28 |
|  | -0.347 | 0.201 |  | + |  | + |  | 0.287 | + |  | 12 | -324.5 | 674.6 | 6.4 | 0.00 | 0.20 | 0.28 |
|  | -0.450 |  | 0.090 | + | + | + | + | 0.274 |  |  | 12 | -324.8 | 675.1 | 6.9 | 0.00 | 0.18 | 0.29 |
|  | -0.416 | 0.243 | 0.134 | + | + |  |  | 0.272 | + |  | 13 | -323.6 | 675.1 | 6.9 | 0.00 | 0.22 | 0.29 |
|  |  | 0.55 | 0.40 | **1** | 0.31 | 0.27 | 0.36 | **1** | 0.07 | 0.07 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1000** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -0.358 |  |  | + |  |  |  | 0.280 |  |  | 8 | -325.8 | 668.2 | 0.0 | 0.19 | 0.17 | 0.28 |
|  | -0.402 |  |  | + | + |  |  | 0.270 |  |  | 9 | -325.4 | 669.7 | 1.5 | 0.09 | 0.17 | 0.29 |
|  | -0.426 |  |  | + |  |  | + | 0.285 |  |  | 9 | -325.5 | 669.8 | 1.6 | 0.08 | 0.18 | 0.28 |
|  | -0.333 |  |  | + |  | + |  | 0.283 |  |  | 9 | -325.6 | 670.1 | 1.9 | 0.07 | 0.18 | 0.29 |
|  | -0.357 | -0.035 |  | + |  |  |  | 0.278 |  |  | 9 | -325.7 | 670.3 | 2.1 | 0.07 | 0.18 | 0.29 |
|  | -0.357 |  | 0.026 | + |  |  |  | 0.278 |  |  | 9 | -325.7 | 670.3 | 2.1 | 0.06 | 0.18 | 0.29 |
|  | -0.469 |  |  | + | + |  | + | 0.275 |  |  | 10 | -325.2 | 671.4 | 3.2 | 0.04 | 0.18 | 0.29 |
|  | -0.377 |  |  | + | + | + |  | 0.272 |  |  | 10 | -325.3 | 671.7 | 3.5 | 0.03 | 0.18 | 0.29 |
|  | -0.402 |  |  | + |  | + | + | 0.287 |  |  | 10 | -325.3 | 671.8 | 3.6 | 0.03 | 0.18 | 0.28 |
|  | -0.401 | -0.037 |  | + | + |  |  | 0.268 |  |  | 10 | -325.4 | 671.8 | 3.6 | 0.03 | 0.18 | 0.29 |
|  | -0.401 |  | 0.028 | + | + |  |  | 0.268 |  |  | 10 | -325.4 | 671.9 | 3.7 | 0.03 | 0.18 | 0.29 |
|  | -0.432 |  | 0.041 | + |  |  | + | 0.282 |  |  | 10 | -325.4 | 671.9 | 3.7 | 0.03 | 0.18 | 0.29 |
|  | -0.424 | -0.010 |  | + |  |  | + | 0.284 |  |  | 10 | -325.5 | 672.0 | 3.8 | 0.03 | 0.18 | 0.28 |
|  | -0.333 | -0.034 |  | + |  | + |  | 0.281 |  |  | 10 | -325.6 | 672.3 | 4.1 | 0.02 | 0.18 | 0.29 |
|  | -0.333 |  | 0.025 | + |  | + |  | 0.281 |  |  | 10 | -325.6 | 672.3 | 4.1 | 0.02 | 0.18 | 0.29 |
|  | -0.357 | -0.030 | 0.009 | + |  |  |  | 0.278 |  |  | 10 | -325.7 | 672.5 | 4.3 | 0.02 | 0.18 | 0.29 |
|  | -0.260 | 0.064 | 0.133 | + |  |  |  | 0.283 |  | 0.218 | 11 | -325.0 | 673.3 | 5.1 | 0.01 | 0.19 | 0.29 |
|  | -0.444 |  |  | + | + | + | + | 0.277 |  |  | 11 | -325.0 | 673.4 | 5.2 | 0.01 | 0.18 | 0.29 |
|  | -0.475 |  | 0.044 | + | + |  | + | 0.272 |  |  | 11 | -325.1 | 673.5 | 5.3 | 0.01 | 0.18 | 0.29 |
|  | -0.466 | -0.012 |  | + | + |  | + | 0.274 |  |  | 11 | -325.1 | 673.6 | 5.4 | 0.01 | 0.18 | 0.29 |
|  | -0.377 | -0.036 |  | + | + | + |  | 0.270 |  |  | 11 | -325.3 | 673.8 | 5.6 | 0.01 | 0.18 | 0.29 |
|  | -0.377 |  | 0.028 | + | + | + |  | 0.271 |  |  | 11 | -325.3 | 673.9 | 5.7 | 0.01 | 0.18 | 0.29 |
|  | -0.407 |  | 0.041 | + |  | + | + | 0.285 |  |  | 11 | -325.3 | 673.9 | 5.7 | 0.01 | 0.18 | 0.29 |
|  | -0.400 | -0.009 |  | + |  | + | + | 0.287 |  |  | 11 | -325.3 | 674.0 | 5.8 | 0.01 | 0.18 | 0.28 |
|  | -0.401 | -0.031 | 0.011 | + | + |  |  | 0.267 |  |  | 11 | -325.4 | 674.1 | 5.9 | 0.01 | 0.18 | 0.29 |
|  | -0.438 | 0.019 | 0.052 | + |  |  | + | 0.283 |  |  | 11 | -325.4 | 674.1 | 5.9 | 0.01 | 0.18 | 0.28 |
|  | -0.354 | 0.154 | 0.223 | + |  |  | + | 0.293 |  | 0.278 | 12 | -324.4 | 674.2 | 6.0 | 0.01 | 0.20 | 0.29 |
|  | -0.355 | 0.039 |  | + |  |  |  | 0.280 | + |  | 11 | -325.5 | 674.3 | 6.1 | 0.01 | 0.18 | 0.29 |
|  | -0.333 | -0.030 | 0.008 | + |  | + |  | 0.280 |  |  | 11 | -325.6 | 674.5 | 6.3 | 0.01 | 0.18 | 0.29 |
|  | -0.304 | 0.065 | 0.137 | + | + |  |  | 0.272 |  | 0.219 | 12 | -324.7 | 674.9 | 6.7 | 0.01 | 0.19 | 0.29 |
|  |  | 0.31 | 0.29 | **1** | 0.31 | 0.27 | 0.31 | **1** | 0.04 | 0.05 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **2000** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -0.358 |  |  | + |  |  |  | 0.280 |  |  | 8 | -325.8 | 668.2 | 0.0 | 0.17 | 0.17 | 0.28 |
|  | -0.402 |  |  | + | + |  |  | 0.270 |  |  | 9 | -325.4 | 669.7 | 1.5 | 0.08 | 0.17 | 0.29 |
|  | -0.426 |  |  | + |  |  | + | 0.285 |  |  | 9 | -325.5 | 669.8 | 1.6 | 0.08 | 0.18 | 0.28 |
|  | -0.357 |  | 0.074 | + |  |  |  | 0.276 |  |  | 9 | -325.6 | 670.0 | 1.8 | 0.07 | 0.18 | 0.28 |
|  | -0.357 | -0.061 |  | + |  |  |  | 0.277 |  |  | 9 | -325.6 | 670.1 | 1.9 | 0.07 | 0.18 | 0.29 |
|  | -0.333 |  |  | + |  | + |  | 0.283 |  |  | 9 | -325.6 | 670.1 | 1.9 | 0.07 | 0.18 | 0.29 |
|  | -0.469 |  |  | + | + |  | + | 0.275 |  |  | 10 | -325.2 | 671.4 | 3.2 | 0.04 | 0.18 | 0.29 |
|  | -0.401 |  | 0.076 | + | + |  |  | 0.266 |  |  | 10 | -325.2 | 671.5 | 3.3 | 0.03 | 0.18 | 0.29 |
|  | -0.431 |  | 0.081 | + |  |  | + | 0.281 |  |  | 10 | -325.2 | 671.6 | 3.4 | 0.03 | 0.19 | 0.29 |
|  | -0.401 | -0.063 |  | + | + |  |  | 0.267 |  |  | 10 | -325.3 | 671.7 | 3.5 | 0.03 | 0.18 | 0.29 |
|  | -0.377 |  |  | + | + | + |  | 0.272 |  |  | 10 | -325.3 | 671.7 | 3.5 | 0.03 | 0.18 | 0.29 |
|  | -0.402 |  |  | + |  | + | + | 0.287 |  |  | 10 | -325.3 | 671.8 | 3.6 | 0.03 | 0.18 | 0.28 |
|  | -0.419 | -0.047 |  | + |  |  | + | 0.282 |  |  | 10 | -325.4 | 671.9 | 3.7 | 0.03 | 0.18 | 0.29 |
|  | -0.332 |  | 0.074 | + |  | + |  | 0.279 |  |  | 10 | -325.4 | 672.0 | 3.8 | 0.03 | 0.18 | 0.29 |
|  | -0.332 | -0.061 |  | + |  | + |  | 0.280 |  |  | 10 | -325.5 | 672.1 | 3.9 | 0.02 | 0.18 | 0.29 |
|  | -0.356 | -0.043 | 0.061 | + |  |  |  | 0.275 |  |  | 10 | -325.5 | 672.1 | 3.9 | 0.02 | 0.19 | 0.29 |
|  | -0.310 | -0.068 | 0.086 | + |  |  |  | 0.278 |  | 0.155 | 11 | -324.6 | 672.4 | 4.2 | 0.02 | 0.21 | 0.30 |
|  | -0.474 |  | 0.083 | + | + |  | + | 0.270 |  |  | 11 | -324.9 | 673.1 | 4.9 | 0.01 | 0.19 | 0.29 |
|  | -0.444 |  |  | + | + | + | + | 0.277 |  |  | 11 | -325.0 | 673.4 | 5.2 | 0.01 | 0.18 | 0.29 |
|  | -0.462 | -0.049 |  | + | + |  | + | 0.272 |  |  | 11 | -325.1 | 673.4 | 5.2 | 0.01 | 0.18 | 0.29 |
|  | -0.407 |  | 0.081 | + |  | + | + | 0.283 |  |  | 11 | -325.1 | 673.5 | 5.3 | 0.01 | 0.19 | 0.29 |
|  | -0.376 |  | 0.076 | + | + | + |  | 0.268 |  |  | 11 | -325.1 | 673.5 | 5.3 | 0.01 | 0.18 | 0.29 |
|  | -0.400 | -0.044 | 0.062 | + | + |  |  | 0.264 |  |  | 11 | -325.2 | 673.6 | 5.4 | 0.01 | 0.19 | 0.29 |
|  | -0.376 | -0.063 |  | + | + | + |  | 0.269 |  |  | 11 | -325.2 | 673.6 | 5.4 | 0.01 | 0.18 | 0.29 |
|  | -0.427 | -0.024 | 0.074 | + |  |  | + | 0.280 |  |  | 11 | -325.2 | 673.7 | 5.5 | 0.01 | 0.19 | 0.29 |
|  | -0.394 | -0.047 |  | + |  | + | + | 0.285 |  |  | 11 | -325.3 | 673.8 | 5.6 | 0.01 | 0.18 | 0.29 |
|  | -0.354 | -0.069 | 0.087 | + | + |  |  | 0.267 |  | 0.155 | 12 | -324.2 | 674.0 | 5.8 | 0.01 | 0.21 | 0.31 |
|  | -0.378 | -0.047 | 0.101 | + |  |  | + | 0.283 |  | 0.157 | 12 | -324.2 | 674.0 | 5.8 | 0.01 | 0.21 | 0.31 |
|  | -0.331 | -0.043 | 0.061 | + |  | + |  | 0.277 |  |  | 11 | -325.4 | 674.1 | 5.9 | 0.01 | 0.19 | 0.29 |
|  | -0.287 | -0.068 | 0.085 | + |  | + |  | 0.280 |  | 0.154 | 12 | -324.4 | 674.4 | 6.2 | 0.01 | 0.21 | 0.31 |
|  | -0.355 | -0.042 |  | + |  |  |  | 0.278 | + |  | 11 | -325.6 | 674.5 | 6.3 | 0.01 | 0.18 | 0.29 |
|  | -0.450 |  | 0.083 | + | + | + | + | 0.273 |  |  | 12 | -324.8 | 675.1 | 6.9 | 0.01 | 0.18 | 0.28 |
|  |  | 0.33 | 0.33 | **1** | 0.31 | 0.27 | 0.31 | **1** | 0.03 | 0.06 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **3000** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -0.358 |  |  | + |  |  |  | 0.280 |  |  | 8 | -325.8 | 668.2 | 0.0 | 0.16 | 0.17 | 0.28 |
|  | -0.356 |  | 0.114 | + |  |  |  | 0.274 |  |  | 9 | -325.3 | 669.5 | 1.3 | 0.09 | 0.19 | 0.29 |
|  | -0.402 |  |  | + | + |  |  | 0.270 |  |  | 9 | -325.4 | 669.7 | 1.5 | 0.08 | 0.17 | 0.29 |
|  | -0.426 |  |  | + |  |  | + | 0.285 |  |  | 9 | -325.5 | 669.8 | 1.6 | 0.07 | 0.18 | 0.28 |
|  | -0.333 |  |  | + |  | + |  | 0.283 |  |  | 9 | -325.6 | 670.1 | 1.9 | 0.06 | 0.18 | 0.29 |
|  | -0.358 | -0.011 |  | + |  |  |  | 0.280 |  |  | 9 | -325.7 | 670.4 | 2.2 | 0.06 | 0.18 | 0.28 |
|  | -0.400 |  | 0.116 | + | + |  |  | 0.263 |  |  | 10 | -325.0 | 671.0 | 2.8 | 0.04 | 0.19 | 0.29 |
|  | -0.428 |  | 0.117 | + |  |  | + | 0.278 |  |  | 10 | -325.0 | 671.0 | 2.8 | 0.04 | 0.19 | 0.29 |
|  | -0.469 |  |  | + | + |  | + | 0.275 |  |  | 10 | -325.2 | 671.4 | 3.2 | 0.03 | 0.18 | 0.29 |
|  | -0.331 |  | 0.114 | + |  | + |  | 0.276 |  |  | 10 | -325.2 | 671.4 | 3.2 | 0.03 | 0.19 | 0.29 |
|  | -0.356 | 0.016 | 0.118 | + |  |  |  | 0.274 |  |  | 10 | -325.3 | 671.6 | 3.4 | 0.03 | 0.19 | 0.29 |
|  | -0.377 |  |  | + | + | + |  | 0.272 |  |  | 10 | -325.3 | 671.7 | 3.5 | 0.03 | 0.18 | 0.29 |
|  | -0.402 |  |  | + |  | + | + | 0.287 |  |  | 10 | -325.3 | 671.8 | 3.6 | 0.03 | 0.18 | 0.28 |
|  | -0.402 | -0.012 |  | + | + |  |  | 0.269 |  |  | 10 | -325.4 | 671.9 | 3.7 | 0.03 | 0.18 | 0.29 |
|  | -0.427 | 0.004 |  | + |  |  | + | 0.285 |  |  | 10 | -325.5 | 672.0 | 3.8 | 0.02 | 0.18 | 0.28 |
|  | -0.333 | -0.011 |  | + |  | + |  | 0.282 |  |  | 10 | -325.6 | 672.3 | 4.1 | 0.02 | 0.18 | 0.29 |
|  | -0.471 |  | 0.119 | + | + |  | + | 0.268 |  |  | 11 | -324.7 | 672.6 | 4.4 | 0.02 | 0.20 | 0.29 |
|  | -0.376 |  | 0.116 | + | + | + |  | 0.266 |  |  | 11 | -324.8 | 673.0 | 4.8 | 0.01 | 0.19 | 0.29 |
|  | -0.403 |  | 0.117 | + |  | + | + | 0.281 |  |  | 11 | -324.9 | 673.0 | 4.8 | 0.01 | 0.20 | 0.29 |
|  | -0.433 | 0.032 | 0.125 | + |  |  | + | 0.280 |  |  | 11 | -325.0 | 673.2 | 5.0 | 0.01 | 0.19 | 0.29 |
|  | -0.400 | 0.015 | 0.120 | + | + |  |  | 0.264 |  |  | 11 | -325.0 | 673.2 | 5.0 | 0.01 | 0.19 | 0.29 |
|  | -0.444 |  |  | + | + | + | + | 0.277 |  |  | 11 | -325.0 | 673.4 | 5.2 | 0.01 | 0.18 | 0.29 |
|  | -0.332 | 0.032 | 0.131 | + |  |  |  | 0.276 |  | 0.099 | 11 | -325.0 | 673.4 | 5.2 | 0.01 | 0.20 | 0.29 |
|  | -0.469 | 0.003 |  | + | + |  | + | 0.275 |  |  | 11 | -325.2 | 673.6 | 5.4 | 0.01 | 0.18 | 0.29 |
|  | -0.331 | 0.016 | 0.118 | + |  | + |  | 0.277 |  |  | 11 | -325.2 | 673.6 | 5.4 | 0.01 | 0.19 | 0.29 |
|  | -0.377 | -0.012 |  | + | + | + |  | 0.272 |  |  | 11 | -325.3 | 673.9 | 5.7 | 0.01 | 0.18 | 0.29 |
|  | -0.402 | 0.004 |  | + |  | + | + | 0.287 |  |  | 11 | -325.3 | 674.0 | 5.8 | 0.01 | 0.18 | 0.28 |
|  | -0.364 | -0.066 |  | + |  |  |  | 0.279 | + |  | 11 | -325.6 | 674.4 | 6.2 | 0.01 | 0.18 | 0.29 |
|  | -0.447 |  | 0.119 | + | + | + | + | 0.270 |  |  | 12 | -324.5 | 674.6 | 6.4 | 0.01 | 0.20 | 0.30 |
|  | -0.413 | 0.056 | 0.143 | + |  |  | + | 0.283 |  | 0.119 | 12 | -324.6 | 674.8 | 6.6 | 0.01 | 0.20 | 0.30 |
|  | -0.476 | 0.031 | 0.127 | + | + |  | + | 0.269 |  |  | 12 | -324.6 | 674.8 | 6.6 | 0.01 | 0.20 | 0.29 |
|  | -0.377 | 0.032 | 0.133 | + | + |  |  | 0.266 |  | 0.100 | 12 | -324.7 | 675.0 | 6.8 | 0.01 | 0.20 | 0.30 |
|  | -0.408 | 0.033 | 0.125 | + |  | + | + | 0.282 |  |  | 12 | -324.8 | 675.2 | 7.0 | 0.00 | 0.20 | 0.29 |
|  |  | 0.3 | 0.37 | **1** | 0.31 | 0.27 | 0.31 | **1** | 0.03 | 0.04 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Parasitism rate* | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **100** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -0.357 |  |  | NA |  |  |  | 0.621 | NA | - | 5 | -108.3 | 227.4 | 0.0 | 0.1 | 0.14 | 0.32 |
|  | -0.099 |  |  | NA |  | + |  | 0.663 | NA | - | 6 | -107.3 | 228.0 | 0.6 | 0.1 | 0.16 | 0.34 |
|  | -0.585 |  |  | NA |  |  | + | 0.656 | NA | - | 6 | -107.6 | 228.6 | 1.2 | 0.1 | 0.16 | 0.31 |
|  | -0.479 |  |  | - | + |  |  | 0.610 | - | NA | 6 | -107.8 | 228.8 | 1.4 | 0.1 | 0.16 | 0.35 |
|  | -0.342 |  |  | - |  | + | + | 0.702 | - | NA | 7 | -106.7 | 229.2 | 1.8 | 0.1 | 0.19 | 0.33 |
|  | -0.222 |  |  | - | + | + |  | 0.651 | - | NA | 7 | -106.9 | 229.5 | 2.1 | 0.1 | 0.18 | 0.36 |
|  | -0.357 | 0.041 |  | - |  |  |  | 0.620 | - | NA | 6 | -108.2 | 229.8 | 2.3 | 0.0 | 0.14 | 0.32 |
|  | -0.357 |  | -0.002 | - |  |  |  | 0.621 | - | NA | 6 | -108.3 | 229.8 | 2.4 | 0.0 | 0.14 | 0.32 |
|  | -0.710 |  |  | - | + |  | + | 0.647 | - | NA | 7 | -107.1 | 230.0 | 2.6 | 0.0 | 0.19 | 0.34 |
|  | -0.708 | 0.229 |  | - |  |  | + | 0.667 | - | NA | 7 | -107.2 | 230.1 | 2.7 | 0.0 | 0.17 | 0.33 |
|  | -0.476 | 0.291 |  | - |  | + | + | 0.723 | - | NA | 8 | -106 | 230.3 | 2.9 | 0.0 | 0.20 | 0.36 |
|  | -0.090 | 0.081 |  | - |  | + |  | 0.662 | - | NA | 7 | -107.3 | 230.3 | 2.9 | 0.0 | 0.16 | 0.34 |
|  | -0.099 |  | -0.031 | - |  | + |  | 0.666 | - | NA | 7 | -107.3 | 230.4 | 3.0 | 0.0 | 0.16 | 0.34 |
|  | -0.468 |  |  | - | + | + | + | 0.691 | - | NA | 8 | -106.3 | 230.8 | 3.4 | 0.0 | 0.21 | 0.36 |
|  | -0.587 |  | 0.033 | - |  |  | + | 0.655 | - | NA | 7 | -107.6 | 231.0 | 3.6 | 0.0 | 0.17 | 0.30 |
|  | -0.480 | 0.048 |  | - | + |  |  | 0.609 | - | NA | 7 | -107.7 | 231.2 | 3.8 | 0.0 | 0.16 | 0.35 |
|  | -0.479 |  | -0.006 | - | + |  |  | 0.611 | - | NA | 7 | -107.8 | 231.3 | 3.9 | 0.0 | 0.16 | 0.34 |
|  | -0.849 | 0.244 |  | - | + |  | + | 0.657 | - | NA | 8 | -106.6 | 231.5 | 4.1 | 0.0 | 0.20 | 0.36 |
|  | -0.343 |  | 0.008 | - |  | + | + | 0.701 | - | NA | 8 | -106.7 | 231.8 | 4.3 | 0.0 | 0.19 | 0.33 |
|  | -0.620 | 0.306 |  | - | + | + | + | 0.713 | - | NA | 9 | -105.5 | 231.8 | 4.4 | 0.0 | 0.22 | 0.39 |
|  | -0.213 | 0.089 |  | - | + | + |  | 0.650 | - | NA | 8 | -106.8 | 231.9 | 4.5 | 0.0 | 0.18 | 0.37 |
|  | -0.222 |  | -0.035 | - | + | + |  | 0.654 | - | NA | 8 | -106.9 | 232.0 | 4.6 | 0.0 | 0.18 | 0.36 |
|  | -0.357 | 0.041 | 0.000 | - |  |  |  | 0.620 | - | NA | 7 | -108.2 | 232.2 | 4.8 | 0.0 | 0.14 | 0.31 |
|  | -0.712 |  | 0.028 | - | + |  | + | 0.645 | - | NA | 8 | -107.1 | 232.6 | 5.1 | 0.0 | 0.19 | 0.33 |
|  | -0.717 | 0.236 | 0.067 | - |  |  | + | 0.664 | - | NA | 8 | -107.1 | 232.6 | 5.2 | 0.0 | 0.17 | 0.32 |
|  | -0.090 | 0.081 | -0.029 | - |  | + |  | 0.665 | - | NA | 8 | -107.3 | 232.8 | 5.4 | 0.0 | 0.16 | 0.34 |
|  | -0.484 | 0.296 | 0.047 | - |  | + | + | 0.721 | - | NA | 9 | -106 | 232.9 | 5.5 | 0.0 | 0.20 | 0.35 |
|  | -0.469 |  | 0.004 | - | + | + | + | 0.690 | - | NA | 9 | -106.3 | 233.4 | 6.0 | 0.0 | 0.21 | 0.35 |
|  | -0.480 | 0.048 | -0.004 | - | + |  |  | 0.609 | - | NA | 8 | -107.7 | 233.7 | 6.3 | 0.0 | 0.16 | 0.34 |
|  | -0.857 | 0.251 | 0.063 | - | + |  | + | 0.655 | - | NA | 9 | -106.6 | 234.1 | 6.7 | 0.0 | 0.20 | 0.35 |
|  |  | 0.29 | 0.24 | - | 0.22 | 0.25 | 0.36 | **1** | - | NA |  |  |  |  |  |  |  |
|  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **250m** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -0.357 |  |  | - |  |  |  | 0.621 | - |  | 5 | -108.3 | 227.4 | 0.0 | 0.2 | 0.14 | 0.32 |
|  | -0.099 |  |  | - |  | + |  | 0.663 | - |  | 6 | -107.3 | 228.0 | 0.6 | 0.1 | 0.16 | 0.34 |
|  | -0.585 |  |  | - |  |  | + | 0.656 | - |  | 6 | -107.6 | 228.6 | 1.2 | 0.1 | 0.16 | 0.31 |
|  | -0.479 |  |  | - | + |  |  | 0.610 | - |  | 6 | -107.8 | 228.8 | 1.4 | 0.1 | 0.16 | 0.35 |
|  | -0.342 |  |  | - |  | + | + | 0.702 | - |  | 7 | -106.7 | 229.2 | 1.8 | 0.1 | 0.19 | 0.33 |
|  | -0.222 |  |  | - | + | + |  | 0.651 | - |  | 7 | -106.9 | 229.5 | 2.1 | 0.1 | 0.18 | 0.36 |
|  | -0.357 | 0.055 |  | - |  |  |  | 0.622 | - |  | 6 | -108.2 | 229.7 | 2.3 | 0.1 | 0.14 | 0.32 |
|  | -0.359 |  | -0.038 | - |  |  |  | 0.624 | - |  | 6 | -108.2 | 229.8 | 2.4 | 0.0 | 0.14 | 0.32 |
|  | -0.710 |  |  | - | + |  | + | 0.647 | - |  | 7 | -107.1 | 230.0 | 2.6 | 0.0 | 0.19 | 0.34 |
|  | -0.095 | 0.074 |  | - |  | + |  | 0.664 | - |  | 7 | -107.3 | 230.3 | 2.9 | 0.0 | 0.16 | 0.34 |
|  | -0.099 |  | -0.063 | - |  | + |  | 0.668 | - |  | 7 | -107.3 | 230.4 | 3.0 | 0.0 | 0.16 | 0.34 |
|  | -0.468 |  |  | - | + | + | + | 0.691 | - |  | 8 | -106.3 | 230.8 | 3.4 | 0.0 | 0.21 | 0.36 |
|  | -0.586 | 0.054 |  | - |  |  | + | 0.656 | - |  | 7 | -107.6 | 231.0 | 3.6 | 0.0 | 0.16 | 0.31 |
|  | -0.584 |  | -0.010 | - |  |  | + | 0.657 | - |  | 7 | -107.6 | 231.0 | 3.6 | 0.0 | 0.16 | 0.31 |
|  | -0.482 | 0.068 |  | - | + |  |  | 0.611 | - |  | 7 | -107.7 | 231.2 | 3.8 | 0.0 | 0.16 | 0.35 |
|  | -0.482 |  | -0.045 | - | + |  |  | 0.613 | - |  | 7 | -107.7 | 231.2 | 3.8 | 0.0 | 0.16 | 0.35 |
|  | -0.338 | 0.073 |  | - |  | + | + | 0.702 | - |  | 8 | -106.7 | 231.6 | 4.2 | 0.0 | 0.19 | 0.33 |
|  | -0.339 |  | -0.033 | - |  | + | + | 0.703 | - |  | 8 | -106.7 | 231.7 | 4.3 | 0.0 | 0.19 | 0.33 |
|  | -0.219 | 0.088 |  | - | + | + |  | 0.652 | - |  | 8 | -106.8 | 231.9 | 4.5 | 0.0 | 0.18 | 0.37 |
|  | -0.223 |  | -0.070 | - | + | + |  | 0.656 | - |  | 8 | -106.8 | 232.0 | 4.6 | 0.0 | 0.18 | 0.37 |
|  | -0.359 | 0.048 | -0.022 | - |  |  |  | 0.623 | - |  | 7 | -108.2 | 232.2 | 4.8 | 0.0 | 0.14 | 0.32 |
|  | -0.714 | 0.068 |  | - | + |  | + | 0.646 | - |  | 8 | -107.1 | 232.5 | 5.1 | 0.0 | 0.19 | 0.34 |
|  | -0.710 |  | -0.018 | - | + |  | + | 0.647 | - |  | 8 | -107.1 | 232.6 | 5.1 | 0.0 | 0.19 | 0.34 |
|  | -0.096 | 0.062 | -0.043 | - |  | + |  | 0.667 | - |  | 8 | -107.3 | 232.8 | 5.4 | 0.0 | 0.16 | 0.34 |
|  | -0.467 | 0.087 |  | - | + | + | + | 0.690 | - |  | 9 | -106.2 | 233.3 | 5.9 | 0.0 | 0.21 | 0.36 |
|  | -0.452 | -0.041 | -0.234 | - |  |  |  | 0.589 | - | -0.404 | 8 | -107.5 | 233.3 | 5.9 | 0.0 | 0.16 | 0.33 |
|  | -0.846 | -0.054 | -0.281 | - |  |  | + | 0.616 | - | -0.589 | 9 | -106.2 | 233.4 | 6.0 | 0.0 | 0.21 | 0.31 |
|  | -0.465 |  | -0.041 | - | + | + | + | 0.693 | - |  | 9 | -106.2 | 233.4 | 6.0 | 0.0 | 0.21 | 0.36 |
|  | -0.586 | 0.056 | 0.008 | - |  |  | + | 0.656 | - |  | 8 | -107.6 | 233.5 | 6.1 | 0.0 | 0.16 | 0.31 |
|  | -0.483 | 0.061 | -0.025 | - | + |  |  | 0.613 | - |  | 8 | -107.7 | 233.7 | 6.3 | 0.0 | 0.16 | 0.35 |
|  | -0.184 | -0.030 | -0.275 | - |  | + |  | 0.629 | - | -0.449 | 9 | -106.5 | 233.8 | 6.4 | 0.0 | 0.19 | 0.35 |
|  | -0.595 | -0.042 | -0.320 | - |  | + | + | 0.657 | - | -0.633 | 10 | -105.2 | 234.0 | 6.6 | 0.0 | 0.24 | 0.33 |
|  | -0.338 | 0.070 | -0.009 | - |  | + | + | 0.702 | - |  | 9 | -106.7 | 234.3 | 6.9 | 0.0 | 0.19 | 0.33 |
|  |  | 0.26 | 0.26 | - | 0.32 | 0.32 | 0.35 | **1** | - | 0.04 |  |  |  |  |  |  |  |
|  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **500m** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -0.804 | -0.213 | -0.733 | - |  |  |  | 0.589 | - | -1.311 | 8 | -103.5 | 225.2 | 0.0 | 0.2 | 0.37 | 0.42 |
|  | -0.575 | -0.203 | -0.793 | - |  | + |  | 0.643 | - | -1.37 | 9 | -102.3 | 225.6 | 0.3 | 0.1 | 0.40 | 0.45 |
|  | -1.051 | -0.153 | -0.732 | - |  |  | + | 0.631 | - | -1.337 | 9 | -102.8 | 226.5 | 1.3 | 0.1 | 0.40 | 0.43 |
|  | -0.831 | -0.143 | -0.793 | - |  | + | + | 0.687 | - | -1.396 | 10 | -101.7 | 226.9 | 1.7 | 0.1 | 0.42 | 0.46 |
|  | -0.909 | -0.209 | -0.733 | - | + |  |  | 0.583 | - | -1.295 | 9 | -103.1 | 227.0 | 1.8 | 0.1 | 0.37 | 0.44 |
|  | -0.357 |  |  | - |  |  |  | 0.621 | - |  | 5 | -108.3 | 227.4 | 2.2 | 0.1 | 0.14 | 0.32 |
|  | -0.677 | -0.198 | -0.792 | - | + | + |  | 0.635 | - | -1.352 | 10 | -102 | 227.5 | 2.3 | 0.1 | 0.40 | 0.47 |
|  | -0.099 |  |  | - |  | + |  | 0.663 | - |  | 6 | -107.3 | 228.0 | 2.8 | 0.0 | 0.16 | 0.34 |
|  | -1.163 | -0.148 | -0.733 | - | + |  | + | 0.626 | - | -1.322 | 10 | -102.4 | 228.4 | 3.2 | 0.0 | 0.40 | 0.45 |
|  | -0.585 |  |  | - |  |  | + | 0.656 | - |  | 6 | -107.6 | 228.6 | 3.4 | 0.0 | 0.16 | 0.31 |
|  | -0.479 |  |  | - | + |  |  | 0.610 | - |  | 6 | -107.8 | 228.8 | 3.6 | 0.0 | 0.16 | 0.35 |
|  | -0.371 |  | -0.238 | - |  |  |  | 0.652 | - |  | 6 | -107.8 | 228.9 | 3.7 | 0.0 | 0.15 | 0.34 |
|  | -0.941 | -0.137 | -0.793 | - | + | + | + | 0.681 | - | -1.38 | 11 | -101.3 | 229.0 | 3.8 | 0.0 | 0.43 | 0.47 |
|  | -0.097 |  | -0.289 | - |  | + |  | 0.705 | - |  | 7 | -106.7 | 229.2 | 4.0 | 0.0 | 0.18 | 0.37 |
|  | -0.342 |  |  | - |  | + | + | 0.702 | - |  | 7 | -106.7 | 229.2 | 4.0 | 0.0 | 0.19 | 0.33 |
|  | -0.222 |  |  | - | + | + |  | 0.651 | - |  | 7 | -106.9 | 229.5 | 4.3 | 0.0 | 0.18 | 0.36 |
|  | -0.357 | -0.006 |  | - |  |  |  | 0.621 | - |  | 6 | -108.2 | 229.8 | 4.6 | 0.0 | 0.14 | 0.32 |
|  | -0.710 |  |  | - | + |  | + | 0.647 | - |  | 7 | -107.1 | 230.0 | 4.8 | 0.0 | 0.19 | 0.34 |
|  | -0.606 |  | -0.257 | - |  |  | + | 0.689 | - |  | 7 | -107.1 | 230.0 | 4.8 | 0.0 | 0.17 | 0.33 |
|  | -0.497 |  | -0.246 | - | + |  |  | 0.642 | - |  | 7 | -107.3 | 230.3 | 5.1 | 0.0 | 0.17 | 0.37 |
|  | -0.350 |  | -0.310 | - |  | + | + | 0.745 | - |  | 8 | -106.1 | 230.4 | 5.2 | 0.0 | 0.20 | 0.36 |
|  | -0.099 | 0.013 |  | - |  | + |  | 0.664 | - |  | 7 | -107.3 | 230.4 | 5.2 | 0.0 | 0.16 | 0.34 |
|  | -0.222 |  | -0.295 | - | + | + |  | 0.693 | - |  | 8 | -106.2 | 230.8 | 5.5 | 0.0 | 0.19 | 0.39 |
|  | -0.468 |  |  | - | + | + | + | 0.691 | - |  | 8 | -106.3 | 230.8 | 5.6 | 0.0 | 0.21 | 0.36 |
|  | -0.594 | 0.042 |  | - |  |  | + | 0.659 | - |  | 7 | -107.6 | 231.0 | 5.8 | 0.0 | 0.16 | 0.31 |
|  | -0.370 | -0.121 | -0.293 | - |  |  |  | 0.651 | - |  | 7 | -107.7 | 231.1 | 5.9 | 0.0 | 0.15 | 0.34 |
|  | -0.479 | 0.000 |  | - | + |  |  | 0.610 | - |  | 7 | -107.8 | 231.3 | 6.0 | 0.0 | 0.16 | 0.35 |
|  | -0.737 |  | -0.267 | - | + |  | + | 0.680 | - |  | 8 | -106.6 | 231.5 | 6.3 | 0.0 | 0.20 | 0.36 |
|  | -0.103 | -0.120 | -0.345 | - |  | + |  | 0.705 | - |  | 8 | -106.6 | 231.6 | 6.3 | 0.0 | 0.18 | 0.37 |
|  | -0.351 | 0.065 |  | - |  | + | + | 0.706 | - |  | 8 | -106.7 | 231.7 | 6.5 | 0.0 | 0.18 | 0.33 |
|  | -0.482 |  | -0.319 | - | + | + | + | 0.735 | - |  | 9 | -105.6 | 232.0 | 6.8 | 0.0 | 0.22 | 0.39 |
|  | -0.221 | 0.020 |  | - | + | + |  | 0.652 | - |  | 8 | -106.9 | 232.0 | 6.8 | 0.0 | 0.18 | 0.36 |
|  |  | **(0.69)** | **(0.73)** | - | 0.3 | 0.34 | 0.34 | **1** | - | **0.6** |  |  |  |  |  |  |  |
|  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1000m** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -0.357 |  |  | - |  |  |  | 0.621 | - |  | 5 | -108.3 | 227.4 | 0.0 | 0.1 | 0.14 | 0.32 |
|  | -0.099 |  |  | - |  | + |  | 0.663 | - |  | 6 | -107.3 | 228.0 | 0.6 | 0.1 | 0.16 | 0.34 |
|  | -0.370 | 0.291 |  | - |  |  |  | 0.657 | - |  | 6 | -107.4 | 228.2 | 0.8 | 0.1 | 0.16 | 0.34 |
|  | -0.369 |  | -0.330 | - |  |  |  | 0.697 | - |  | 6 | -107.5 | 228.2 | 0.8 | 0.1 | 0.15 | 0.35 |
|  | -0.091 |  | -0.399 | - |  | + |  | 0.762 | - |  | 7 | -106.3 | 228.4 | 1.0 | 0.1 | 0.18 | 0.37 |
|  | -0.717 | 0.398 |  | - |  |  | + | 0.723 | - |  | 7 | -106.3 | 228.4 | 1.0 | 0.1 | 0.20 | 0.33 |
|  | -0.082 | 0.336 |  | - |  | + |  | 0.709 | - |  | 7 | -106.4 | 228.5 | 1.1 | 0.1 | 0.19 | 0.36 |
|  | -0.585 |  |  | - |  |  | + | 0.656 | - |  | 6 | -107.6 | 228.6 | 1.2 | 0.1 | 0.16 | 0.31 |
|  | -0.444 | 0.447 |  | - |  | + | + | 0.781 | - |  | 8 | -105.2 | 228.7 | 1.3 | 0.0 | 0.23 | 0.35 |
|  | -0.479 |  |  | - | + |  |  | 0.610 | - |  | 6 | -107.8 | 228.8 | 1.4 | 0.0 | 0.16 | 0.35 |
|  | -0.342 |  |  | - |  | + | + | 0.702 | - |  | 7 | -106.7 | 229.2 | 1.8 | 0.0 | 0.19 | 0.33 |
|  | -0.222 |  |  | - | + | + |  | 0.651 | - |  | 7 | -106.9 | 229.5 | 2.1 | 0.0 | 0.18 | 0.36 |
|  | -0.587 |  | -0.330 | - |  |  | + | 0.731 | - |  | 7 | -106.9 | 229.5 | 2.1 | 0.0 | 0.17 | 0.34 |
|  | -0.494 |  | -0.333 | - | + |  |  | 0.686 | - |  | 7 | -107 | 229.7 | 2.2 | 0.0 | 0.17 | 0.37 |
|  | -0.489 | 0.287 |  | - | + |  |  | 0.645 | - |  | 7 | -107 | 229.7 | 2.3 | 0.0 | 0.17 | 0.36 |
|  | -0.323 |  | -0.399 | - |  | + | + | 0.799 | - |  | 8 | -105.8 | 229.8 | 2.4 | 0.0 | 0.20 | 0.37 |
|  | -0.216 |  | -0.400 | - | + | + |  | 0.749 | - |  | 8 | -105.8 | 230.0 | 2.6 | 0.0 | 0.19 | 0.40 |
|  | -0.839 | 0.395 |  | - | + |  | + | 0.711 | - |  | 8 | -105.8 | 230.0 | 2.6 | 0.0 | 0.22 | 0.36 |
|  | -0.710 |  |  | - | + |  | + | 0.647 | - |  | 7 | -107.1 | 230.0 | 2.6 | 0.0 | 0.19 | 0.34 |
|  | -0.202 | 0.331 |  | - | + | + |  | 0.695 | - |  | 8 | -105.9 | 230.1 | 2.7 | 0.0 | 0.20 | 0.38 |
|  | -0.382 | 0.224 | -0.162 | - |  |  |  | 0.694 | - |  | 7 | -107.3 | 230.3 | 2.8 | 0.0 | 0.16 | 0.35 |
|  | -0.565 | 0.442 |  | - | + | + | + | 0.768 | - |  | 9 | -104.8 | 230.4 | 3.0 | 0.0 | 0.24 | 0.38 |
|  | -0.084 | 0.246 | -0.202 | - |  | + |  | 0.755 | - |  | 8 | -106.1 | 230.5 | 3.1 | 0.0 | 0.19 | 0.37 |
|  | -0.468 |  |  | - | + | + | + | 0.691 | - |  | 8 | -106.3 | 230.8 | 3.4 | 0.0 | 0.21 | 0.36 |
|  | -0.708 | 0.364 | -0.070 | - |  |  | + | 0.736 | - |  | 8 | -106.3 | 230.9 | 3.5 | 0.0 | 0.20 | 0.33 |
|  | -0.716 |  | -0.336 | - | + |  | + | 0.721 | - |  | 8 | -106.4 | 231.0 | 3.6 | 0.0 | 0.20 | 0.37 |
|  | -0.423 | 0.388 | -0.111 | - |  | + | + | 0.801 | - |  | 9 | -105.1 | 231.2 | 3.7 | 0.0 | 0.23 | 0.35 |
|  | -0.453 |  | -0.403 | - | + | + | + | 0.787 | - |  | 9 | -105.3 | 231.4 | 4.0 | 0.0 | 0.22 | 0.39 |
|  | -0.505 | 0.215 | -0.171 | - | + |  |  | 0.683 | - |  | 8 | -106.8 | 231.8 | 4.4 | 0.0 | 0.18 | 0.37 |
|  | -0.207 | 0.234 | -0.214 | - | + | + |  | 0.742 | - |  | 9 | -105.6 | 232.2 | 4.8 | 0.0 | 0.20 | 0.39 |
|  | -0.272 | 0.331 | -0.040 | - |  |  |  | 0.712 | - | 0.233 | 8 | -107.1 | 232.4 | 5.0 | 0.0 | 0.16 | 0.35 |
|  | -0.828 | 0.351 | -0.085 | - | + |  | + | 0.726 | - |  | 9 | -105.8 | 232.5 | 5.1 | 0.0 | 0.22 | 0.36 |
|  | -0.579 | 0.542 | 0.125 | - |  |  | + | 0.769 | - | 0.359 | 9 | -105.8 | 232.6 | 5.2 | 0.0 | 0.21 | 0.34 |
|  | 0.044 | 0.365 | -0.071 | - |  | + |  | 0.777 | - | 0.261 | 9 | -105.9 | 232.6 | 5.2 | 0.0 | 0.19 | 0.37 |
|  | -0.278 | 0.586 | 0.100 | - |  | + | + | 0.840 | - | 0.401 | 10 | -104.6 | 232.8 | 5.4 | 0.0 | 0.24 | 0.36 |
|  | -0.545 | 0.375 | -0.125 | - | + | + | + | 0.789 | - |  | 10 | -104.7 | 232.9 | 5.5 | 0.0 | 0.24 | 0.38 |
|  | -0.389 | 0.331 | -0.040 | - | + |  |  | 0.702 | - | 0.252 | 9 | -106.5 | 234.0 | 6.6 | 0.0 | 0.18 | 0.38 |
|  | -0.699 | 0.543 | 0.123 | - | + |  | + | 0.760 | - | 0.382 | 10 | -105.3 | 234.2 | 6.8 | 0.0 | 0.23 | 0.37 |
|  | -0.075 | 0.363 | -0.071 | - | + | + |  | 0.765 | - | 0.278 | 10 | -105.4 | 234.4 | 7.0 | 0.0 | 0.21 | 0.40 |
|  |  | 0.32 | 0.29 | - | 0.32 | 0.35 | 0.39 | **1** | - | 0.04 |  |  |  |  |  |  |  |
|  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **2000m** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -0.503 | 0.689 |  | - |  | + | + | 0.873 | - |  | 8 | -102.2 | 222.7 | 0.0 | 0.2 | 0.31 | 0.38 |
|  | -0.777 | 0.627 |  | - |  |  | + | 0.797 | - |  | 7 | -103.7 | 223.2 | 0.4 | 0.1 | 0.27 | 0.36 |
|  | -0.065 | 0.556 |  | - |  | + |  | 0.767 | - |  | 7 | -104.2 | 224.1 | 1.3 | 0.1 | 0.25 | 0.38 |
|  | -0.362 | 0.501 |  | - |  |  |  | 0.703 | - |  | 6 | -105.5 | 224.3 | 1.6 | 0.1 | 0.21 | 0.35 |
|  | -0.610 | 0.681 |  | - | + | + | + | 0.860 | - |  | 9 | -101.9 | 224.7 | 1.9 | 0.1 | 0.33 | 0.41 |
|  | -0.886 | 0.619 |  | - | + |  | + | 0.785 | - |  | 8 | -103.3 | 224.9 | 2.2 | 0.1 | 0.29 | 0.38 |
|  | -0.510 | 0.704 | 0.063 | - |  | + | + | 0.859 | - |  | 9 | -102.2 | 225.3 | 2.5 | 0.0 | 0.32 | 0.38 |
|  | -0.778 | 0.648 | 0.087 | - |  |  | + | 0.780 | - |  | 8 | -103.6 | 225.5 | 2.8 | 0.0 | 0.28 | 0.35 |
|  | -0.431 | 0.685 | 0.057 | - |  | + | + | 0.912 | - | 0.259 | 10 | -101 | 225.5 | 2.8 | 0.0 | 0.33 | 0.40 |
|  | -0.697 | 0.628 | 0.085 | - |  |  | + | 0.828 | - | 0.253 | 9 | -102.5 | 225.8 | 3.1 | 0.0 | 0.30 | 0.37 |
|  | -0.173 | 0.547 |  | - | + | + |  | 0.753 | - |  | 8 | -103.8 | 225.9 | 3.2 | 0.0 | 0.25 | 0.40 |
|  | -0.473 | 0.494 |  | - | + |  |  | 0.690 | - |  | 7 | -105.1 | 226.0 | 3.2 | 0.0 | 0.22 | 0.38 |
|  | -0.065 | 0.561 | 0.022 | - |  | + |  | 0.762 | - |  | 8 | -104.2 | 226.6 | 3.9 | 0.0 | 0.25 | 0.37 |
|  | -0.360 | 0.511 | 0.045 | - |  |  |  | 0.694 | - |  | 7 | -105.5 | 226.7 | 4.0 | 0.0 | 0.21 | 0.35 |
|  | 0.021 | 0.536 | 0.018 | - |  | + |  | 0.809 | - | 0.256 | 9 | -103.2 | 227.2 | 4.5 | 0.0 | 0.26 | 0.39 |
|  | -0.614 | 0.693 | 0.053 | - | + | + | + | 0.849 | - |  | 10 | -101.8 | 227.3 | 4.6 | 0.0 | 0.33 | 0.40 |
|  | -0.271 | 0.486 | 0.046 | - |  |  |  | 0.737 | - | 0.254 | 8 | -104.5 | 227.3 | 4.6 | 0.0 | 0.22 | 0.36 |
|  | -0.885 | 0.638 | 0.076 | - | + |  | + | 0.771 | - |  | 9 | -103.2 | 227.4 | 4.6 | 0.0 | 0.30 | 0.37 |
|  | -0.357 |  |  | - |  |  |  | 0.621 | - |  | 5 | -108.3 | 227.4 | 4.7 | 0.0 | 0.14 | 0.32 |
|  | -0.546 | 0.672 | 0.044 | - | + | + | + | 0.904 | - | 0.271 | 11 | -100.5 | 227.5 | 4.7 | 0.0 | 0.35 | 0.43 |
|  | -0.812 | 0.617 | 0.072 | - | + |  | + | 0.821 | - | 0.265 | 10 | -102 | 227.6 | 4.9 | 0.0 | 0.32 | 0.40 |
|  | -0.099 |  |  | - |  | + |  | 0.663 | - |  | 6 | -107.3 | 228.0 | 5.2 | 0.0 | 0.16 | 0.34 |
|  | -0.470 | 0.502 | 0.036 | - | + |  |  | 0.683 | - |  | 8 | -105.1 | 228.5 | 5.7 | 0.0 | 0.22 | 0.37 |
|  | -0.173 | 0.550 | 0.013 | - | + | + |  | 0.750 | - |  | 9 | -103.8 | 228.5 | 5.8 | 0.0 | 0.26 | 0.39 |
|  | -0.585 |  |  | - |  |  | + | 0.656 | - |  | 6 | -107.6 | 228.6 | 5.8 | 0.0 | 0.16 | 0.31 |
|  | -0.479 |  |  | - | + |  |  | 0.610 | - |  | 6 | -107.8 | 228.8 | 6.1 | 0.0 | 0.16 | 0.35 |
|  | -0.387 | 0.475 | 0.035 | - | + |  |  | 0.727 | - | 0.265 | 9 | -104 | 229.0 | 6.3 | 0.0 | 0.24 | 0.39 |
|  | -0.093 | 0.523 | 0.008 | - | + | + |  | 0.797 | - | 0.267 | 10 | -102.7 | 229.1 | 6.3 | 0.0 | 0.27 | 0.41 |
|  | -0.342 |  |  | - |  | + | + | 0.702 | - |  | 7 | -106.7 | 229.2 | 6.5 | 0.0 | 0.19 | 0.33 |
|  | -0.222 |  |  | - | + | + |  | 0.651 | - |  | 7 | -106.9 | 229.5 | 6.8 | 0.0 | 0.18 | 0.36 |
|  | -0.361 |  | -0.097 | - |  |  |  | 0.640 | - |  | 6 | -108.2 | 229.6 | 6.9 | 0.0 | 0.14 | 0.32 |
|  |  | **0.92** | 0.34 | - | 0.29 | 0.25 | 0.36 | **1** | - | 0.14 |  |  |  |  |  |  |  |
|  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **3000m** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -0.361 | 0.427 |  | - |  |  |  | 0.657 | - |  | 6 | -106.3 | 225.9 | 0.0 | 0.1 | 0.19 | 0.33 |
|  | -0.082 | 0.464 |  | - |  | + |  | 0.707 | - |  | 7 | -105.1 | 226.0 | 0.2 | 0.1 | 0.23 | 0.35 |
|  | -0.686 | 0.491 |  | - |  |  | + | 0.714 | - |  | 7 | -105.2 | 226.1 | 0.2 | 0.1 | 0.24 | 0.32 |
|  | -0.419 | 0.528 |  | - |  | + | + | 0.767 | - |  | 8 | -104 | 226.3 | 0.5 | 0.1 | 0.26 | 0.34 |
|  | -0.357 |  |  | - |  |  |  | 0.621 | - |  | 5 | -108.3 | 227.4 | 1.5 | 0.1 | 0.14 | 0.32 |
|  | -0.474 | 0.419 |  | - | + |  |  | 0.646 | - |  | 7 | -105.9 | 227.5 | 1.6 | 0.0 | 0.21 | 0.35 |
|  | -0.799 | 0.484 |  | - | + |  | + | 0.703 | - |  | 8 | -104.7 | 227.8 | 1.9 | 0.0 | 0.26 | 0.35 |
|  | -0.193 | 0.456 |  | - | + | + |  | 0.695 | - |  | 8 | -104.8 | 227.8 | 2.0 | 0.0 | 0.24 | 0.37 |
|  | -0.099 |  |  | - |  | + |  | 0.663 | - |  | 6 | -107.3 | 228.0 | 2.1 | 0.0 | 0.16 | 0.34 |
|  | -0.365 | 0.412 | -0.074 | - |  |  |  | 0.672 | - |  | 7 | -106.2 | 228.2 | 2.3 | 0.0 | 0.19 | 0.33 |
|  | -0.531 | 0.520 |  | - | + | + | + | 0.755 | - |  | 9 | -103.7 | 228.2 | 2.3 | 0.0 | 0.28 | 0.36 |
|  | -0.079 | 0.446 | -0.100 | - |  | + |  | 0.729 | - |  | 8 | -105 | 228.4 | 2.5 | 0.0 | 0.23 | 0.36 |
|  | -0.688 | 0.479 | -0.062 | - |  |  | + | 0.727 | - |  | 8 | -105.1 | 228.5 | 2.6 | 0.0 | 0.24 | 0.32 |
|  | -0.585 |  |  | - |  |  | + | 0.656 | - |  | 6 | -107.6 | 228.6 | 2.7 | 0.0 | 0.16 | 0.31 |
|  | -0.415 | 0.512 | -0.089 | - |  | + | + | 0.787 | - |  | 9 | -103.9 | 228.8 | 2.9 | 0.0 | 0.27 | 0.34 |
|  | -0.479 |  |  | - | + |  |  | 0.610 | - |  | 6 | -107.8 | 228.8 | 2.9 | 0.0 | 0.16 | 0.35 |
|  | -0.342 |  |  | - |  | + | + | 0.702 | - |  | 7 | -106.7 | 229.2 | 3.3 | 0.0 | 0.19 | 0.33 |
|  | -0.366 |  | -0.167 | - |  |  |  | 0.652 | - |  | 6 | -108 | 229.3 | 3.4 | 0.0 | 0.14 | 0.33 |
|  | -0.222 |  |  | - | + | + |  | 0.651 | - |  | 7 | -106.9 | 229.5 | 3.6 | 0.0 | 0.18 | 0.36 |
|  | -0.096 |  | -0.196 | - |  | + |  | 0.699 | - |  | 7 | -107 | 229.8 | 3.9 | 0.0 | 0.17 | 0.35 |
|  | -0.479 | 0.403 | -0.082 | - | + |  |  | 0.662 | - |  | 8 | -105.8 | 229.9 | 4.0 | 0.0 | 0.21 | 0.36 |
|  | -0.710 |  |  | - | + |  | + | 0.647 | - |  | 7 | -107.1 | 230.0 | 4.2 | 0.0 | 0.19 | 0.34 |
|  | -0.315 | 0.451 | -0.075 | - |  |  |  | 0.685 | - | 0.198 | 8 | -105.9 | 230.1 | 4.2 | 0.0 | 0.20 | 0.34 |
|  | -0.648 | 0.529 | -0.063 | - |  |  | + | 0.747 | - | 0.226 | 9 | -104.6 | 230.2 | 4.3 | 0.0 | 0.25 | 0.33 |
|  | -0.192 | 0.436 | -0.108 | - | + | + |  | 0.718 | - |  | 9 | -104.7 | 230.2 | 4.3 | 0.0 | 0.24 | 0.38 |
|  | -0.804 | 0.470 | -0.072 | - | + |  | + | 0.718 | - |  | 9 | -104.7 | 230.3 | 4.4 | 0.0 | 0.26 | 0.35 |
|  | -0.038 | 0.484 | -0.102 | - |  | + |  | 0.742 | - | 0.188 | 9 | -104.8 | 230.4 | 4.5 | 0.0 | 0.23 | 0.36 |
|  | -0.590 |  | -0.162 | - |  |  | + | 0.682 | - |  | 7 | -107.4 | 230.6 | 4.7 | 0.0 | 0.16 | 0.32 |
|  | -0.386 | 0.561 | -0.091 | - |  | + | + | 0.807 | - | 0.22 | 10 | -103.5 | 230.6 | 4.7 | 0.0 | 0.27 | 0.35 |
|  | -0.53 | 0.502 | -0.098 | - | + | + | + | 0.777 | - |  | 10 | -103.5 | 230.7 | 4.8 | 0.0 | 0.28 | 0.37 |
|  | -0.491 |  | -0.174 | - | + |  |  | 0.641 | - |  | 7 | -107.5 | 230.7 | 4.9 | 0.0 | 0.16 | 0.36 |
|  | -0.468 |  |  | - | + | + | + | 0.691 | - |  | 8 | -106.3 | 230.8 | 4.9 | 0.0 | 0.21 | 0.36 |
|  | -0.335 |  | -0.189 | - |  | + | + | 0.732 | - |  | 8 | -106.5 | 231.2 | 5.3 | 0.0 | 0.19 | 0.34 |
|  | -0.221 |  | -0.202 | - | + | + |  | 0.687 | - |  | 8 | -106.5 | 231.4 | 5.5 | 0.0 | 0.18 | 0.38 |
|  | -0.430 | 0.443 | -0.083 | - | + |  |  | 0.675 | - | 0.202 | 9 | -105.5 | 231.8 | 6.0 | 0.0 | 0.22 | 0.36 |
|  | -0.766 | 0.521 | -0.073 | - | + |  | + | 0.739 | - | 0.232 | 10 | -104.2 | 232.0 | 6.1 | 0.0 | 0.27 | 0.36 |
|  | -0.719 |  | -0.169 | - | + |  | + | 0.673 | - |  | 8 | -106.9 | 232.1 | 6.2 | 0.0 | 0.19 | 0.35 |
|  | -0.152 | 0.474 | -0.110 | - | + | + |  | 0.731 | - | 0.192 | 10 | -104.4 | 232.3 | 6.4 | 0.0 | 0.25 | 0.38 |
|  | -0.502 | 0.552 | -0.100 | - | + | + | + | 0.798 | - | 0.225 | 11 | -103.1 | 232.6 | 6.7 | 0.0 | 0.29 | 0.38 |
|  | -0.464 |  | -0.196 | - | + | + | + | 0.721 | - |  | 9 | -106 | 232.8 | 7.0 | 0.0 | 0.21 | 0.37 |
|  |  | **0.55** | 0.26 | - | 0.22 | 0.25 | 0.35 | **1.0** | - | 0.04 |  |  |  |  |  |  |  |

\* A = Aphid density, B = Bird exclusion experiment (birds excluded yes/no), CropDiv = Crop diversity, F = Nitrogen fertilization (fertilizer applied yes/no), SNH = Proportion of seminatural habitat, SOC = soil organic carbon content (soil organic carbon content low/high), S = Survey interval (5 = day 0 to 5, 10 = days 5 to 10, 15 = days 10 to 15), CropDiv:S = interaction crop diversity x survey interval, CropDiv:SNH = Crop diversity x SNH interaction

† Nitrogen and SOC are included due to the nature of the experimental design and analysis, yet not further developed in this paper.

Table S6: Model-averaged estimates with unconditional lower and upper 95% confidence Intervals for biological control, predator density and parasitoid density as function of local and landscape factors on six spatial scales (100m, 250m, 500m, 1000m, 2000m, 3000m). Model averaging was based on a set of top models (ΔAICc<7). Estimates are highlighted in bold if 95% confidence intervals do not overlap zero.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **100** | **250** | **500** | **1000** | **2000** | **3000** |
| *Biological control* | |  |  |  |  |  |
| CropDiv S5 | -0.053  (-0.142, 0.036) | **-0.103**  **(-0.19, -0.015)** | **-0.1**  **(-0.187, -0.014)** | **-0.104**  **(-0.202, -0.016)** | -0.072  (-0.192, 0.01) | **-0.131**  **(-0.217, -0.045)** |
| CropDiv S10 | 0.085  (-0.1, 0.27) | 0.048  (-0.136, 0.233) | 0.057  (-0.124, 0.238) | 0.017  (-0.17, 0.206) | -0.009  (-0.195, 0.203) | 0.012  (-0.17, 0.194) |
| CropDiv S15 | 0.123  (-0.062, 0.307) | 0.132  (-0.05, 0.314) | 0.09  (-0.091, 0.272) | 0.041  (-0.146, 0.234) | 0.016  (-0.158, 0.244) | 0.027  (-0.156, 0.211) |
| CropDiv:S5-S10 | **0.139**  **(0.042, 0.235)** | **0.151**  **(0.054, 0.248)** | **0.157**  **(0.063, 0.251)** | **0.12**  **(0.032, 0.222)** | 0.063  (-0.003, 0.194) | **0.143**  **(0.047, 0.239)** |
| CropDiv:S5-S15 | **0.176**  **(0.081, 0.272)** | **0.235**  **(0.14, 0.33)** | **0.191**  **(0.096, 0.286)** | **0.145**  **(0.057, 0.25)** | **0.088**  **(0.035, 0.234)** | **0.158**  **(0.06, 0.256)** |
| CropDiv:S10-S15 | 0.038  (-0.059, 0.134) | 0.084  (-0.015, 0.182) | 0.033  (-0.064, 0.131) | 0.025  (-0.222, 0.126) | 0.025  (-0.064, 0.141) | 0.015  (-0.087, 0.118) |
| SNH | -0.005  (-0.081, 0.046) | -0.003  (-0.079, 0.057) | -0.002  (-0.072, 0.061) | -0.027  (-0.12, 0.026) | -0.027  (-0.104, 0.016) | -0.021  (-0.094, 0.023) |
| CropDiv:SNH | -0.0001  (-0.068, 0.066) | 0.0003  (-0.093, 0.103) | 0.0141  (-0.034, 0.162) | -0.0011  (-0.111, 0.095) | -0.001  (-0.064, 0.048) | -0.0119  (-0.111, 0.027) |
| S5-S10 | -0.029  (-0.127, 0.068) | -0.031  (-0.129, 0.068) | -0.03  (-0.127, 0.066) | -0.03  (-0.128, 0.069) | -0.027  (-0.128, 0.074) | -0.031  (-0.128, 0.067) |
| S5-S15 | **0.254**  **(0.157, 0.351)** | **0.25**  **(0.154, 0.346)** | **0.254**  **(0.156, 0.351)** | **0.254**  **(0.153, 0.354)** | **0.259**  **(0.156, 0.362)** | **0.253**  **(0.154, 0.352)** |
| S10-S15 | **0.284**  **(0.186, 0.382)** | **0.281**  **(0.181, 0.381)** | **0.284**  **(0.183, 0.384)** | **0.283**  **(0.18, 0.387)** | **0.286**  **(0.182, 0.39)** | **0.284**  **(0.18, 0.388)** |
| B | -0.029  (-0.141, 0.019) | -0.023  (-0.133, 0.026) | -0.029  (-0.141, 0.022) | -0.026  (-0.141, 0.026) | -0.023  (-0.139, 0.029) | -0.025  (-0.139, 0.027) |
| SOC | 0.011  (-0.096, 0.17) | -0.005  (-0.138, 0.098) | -0.005  (-0.145, 0.104) | -0.011  (-0.164, 0.086) | -0.009  (-0.151, 0.086) | -0.008  (-0.148, 0.089) |
| F | -0.01  (-0.13, 0.067) | -0.006  (-0.117, 0.07) | -0.009  (-0.126, 0.063) | -0.009  (-0.126, 0.064) | -0.009  (-0.129, 0.063) | -0.011  (-0.13, 0.055) |
|  |  |  |  |  |  |  |
| *Predator density* | |  |  |  |  |  |
| CropDiv 5 | **0.275**  **(0.015, 0.536)** | **0.245**  **(0.048, 0.476)** | 0.09  (-0.058, 1.171) | -0.003  (-0.292, 0.269) | -0.016  (-0.299, 0.189) | 0.001  (-0.24, 0.247) |
| CropDiv 10 | 0.398  (-0.097, 1.022) | 0.258  (-0.202, 0.861) | 0.087  (-0.403, 1.405) | -0.004  (-0.677, 0.488) | -0.016  (-0.622, 0.477) | 0.002  (-0.454, 0.637) |
| CropDiv 15 | 0.2  (-0.423, 0.743) | 0.221  (-0.414, 0.687) | 0.084  (-0.497, 1.348) | -0.004  (-0.716, 0.489) | -0.016  (-0.655, 0.48) | 0.001  (-0.521, 0.609) |
| CropDiv S5-S10 | 0.122  (-0.112, 0.486) | 0.013  (-0.25, 0.385) | -0.003  (-0.345, 0.234) | -0.001  (-0.385, 0.219) | -0.001  (-0.323, 0.289) | -0.001  (-0.214, 0.39) |
| CropDiv S5-S15 | -0.075  (-0.438, 0.207) | -0.024  (-0.462, 0.211) | -0.006  (-0.439, 0.177) | -0.001  (-0.424, 0.22) | -0.001  (-0.356, 0.291) | -0.001  (-0.281, 0.361) |
| CropDiv S10-S15 | **-0.198**  **(-0.559, -0.046)** | -0.037  (-0.461, 0.075) | -0.004  (-0.327, 0.175) | 0.001  (-0.283, 0.244) | -0.001  (-0.275, 0.245) | -0.001  (-0.306, 0.21) |
| SNH | 0.093  (-0.04, 0.343) | 0.127  (-0.023, 0.385) | 0.046  (-0.113, 0.348) | 0.011  (-0.247, 0.334) | 0.024  (-0.168, 0.32) | 0.042  (-0.118, 0.354) |
| CropDiv:SNH | -0.0025  (-0.16, 0.125) | 0.0104  (-0.197, 0.315) | -0.0039  (-0.398, 0.26) | 0.0071  (-0.137, 0.61) | 0.0074  (-0.073, 0.384) | 0.0025  (-0.183, 0.392) |
| S5-10 | **0.818**  **(0.502, 1.135)** | **0.864**  **(0.561, 1.167)** | **0.872**  **(0.573, 1.171)** | **0.87**  **(0.571, 1.169)** | **0.87**  **(0.571, 1.168)** | **0.869**  **(0.57, 1.168)** |
| S5-15 | **0.699**  **(0.359, 1.038)** | **0.715**  **(0.375, 1.054)** | **0.721**  **(0.383, 1.059)** | **0.717**  **(0.379, 1.054)** | **0.715**  **(0.378, 1.052)** | **0.715**  **(0.378, 1.052)** |
| S10-15 | -0.12  (-0.401, 0.161) | -0.149  (-0.42, 0.122) | -0.151  (-0.419, 0.117) | -0.153  (-0.421, 0.114) | -0.154  (-0.422, 0.113) | -0.154  (-0.393, 0.116) |
| B | 0.031  (-0.133, 0.335) | 0.031  (-0.132, 0.333) | 0.029  (-0.138, 0.327) | 0.028  (-0.137, 0.327) | 0.028  (-0.137, 0.327) | 0.029  (-0.137, 0.328) |
| A | **0.253**  **(0.147, 0.359)** | **0.27**  **(0.166, 0.374)** | **0.282**  **(0.177, 0.387)** | **0.278**  **(0.174, 0.383)** | **0.277**  **(0.173, 0.381)** | **0.277**  **(0.172, 0.381)** |
| SOC | 0.048  (-0.164, 0.432) | 0.051  (-0.158, 0.462) | 0.063  (-0.177, 0.539) | 0.041  (-0.219, 0.497) | 0.039  (-0.216, 0.484) | 0.042  (-0.213, 0.488) |
| F | -0.011  (-0.271, 0.183) | -0.012  (-0.276, 0.177) | -0.015  (-0.282, 0.17) | -0.014  (-0.283, 0.169) | -0.015  (-0.283, 0.169) | -0.014  (-0.283, 0.169) |
|  |  |  |  |  |  |  |
| *Parasitoid density* | |  |  |  |  |  |
| CropDiv | 0.042  (-0.335, 0.648) | 0.013  (-0.406, 0.513) | -0.115  (-0.526, 0.189) | 0.149  (-0.169, 0.873) | **0.578**  **(0.173, 1.056)** | **0.348**  **(0.048, 0.893)** |
| SNH | 0.001  (-0.495, 0.502) | -0.015  (-0.582, 0.456) | **-0.498**  **(-1.21, -0.148)** | -0.1  (-0.944, 0.4) | 0.018  (-0.348, 0.455) | -0.031  (-0.557, 0.342) |
| CropDiv:SNH | NA | -0.0134  (-1.182, 0.157) | **-0.819**  **(-2.012, -0.671)** | 0.01  (-0.46, 1.077) | 0.038  (-0.083, 0.602) | 0.013  (-0.271, 0.69) |
| B | 0.07  (-0.226, 0.669) | 0.068  (-0.227, 0.668) | 0.059  (-0.12, 0.532) | 0.069  (-0.229, 0.669) | 0.0557  (-0.254, 0.649) | 0.062  (-0.243, 0.655) |
| A | **0.651**  **(0.361, 0.942)** | **0.648**  **(0.359, 0.937)** | **0.639**  **(0.43, 0.848)** | **0.699**  **(0.376, 1.023)** | **0.794**  **(0.454, 1.133)** | **0.697**  **(0.392, 1.001)** |
| SOC | 0.22  (-0.347, 1.49) | 0.168  (-0.357, 1.316) | 0.156  (-0.125, 1.064) | 0.225  (-0.326, 1.475) | 0.521  (-0.017, 1.666) | 0.264  (-0.249, 1.46) |
| F | -0.24  (-1.423, 0.286) | -0.235  (-1.423, 0.296) | -0.257  (-1.19, 0.025) | -0.274  (-1.486, 0.264) | -0.346  (-1.481, 0.16) | -0.277  (-1.471, 0.25) |

Fixed effect abbreviations: A = Aphid density, B = Bird exclusion (birds excluded yes/no), CropDiv = Crop diversity, F = Nitrogen fertilization (fertilizer applied yes/no), SNH = Proportion of seminatural habitat, SOC = Soil organic carbon content (soil organic carbon content low/high), S = Survey interval (5 = day 0 to 5, 10 = days 5 to 10, 15 = days 10 to 15), CropDiv:S = Interaction Crop diversity x Survey interval e.g. CropDiv:S5-S10 = difference in CropDiv effects between survey interval 5 (days 0 to 5) and 10 (days 5 to 10), CropDiv:SNH = interaction crop diversity x proportion of seminatural habitat.

\* Fertilization and SOC are included due to the nature of the experimental design and analysis, yet not further developed in this paper.

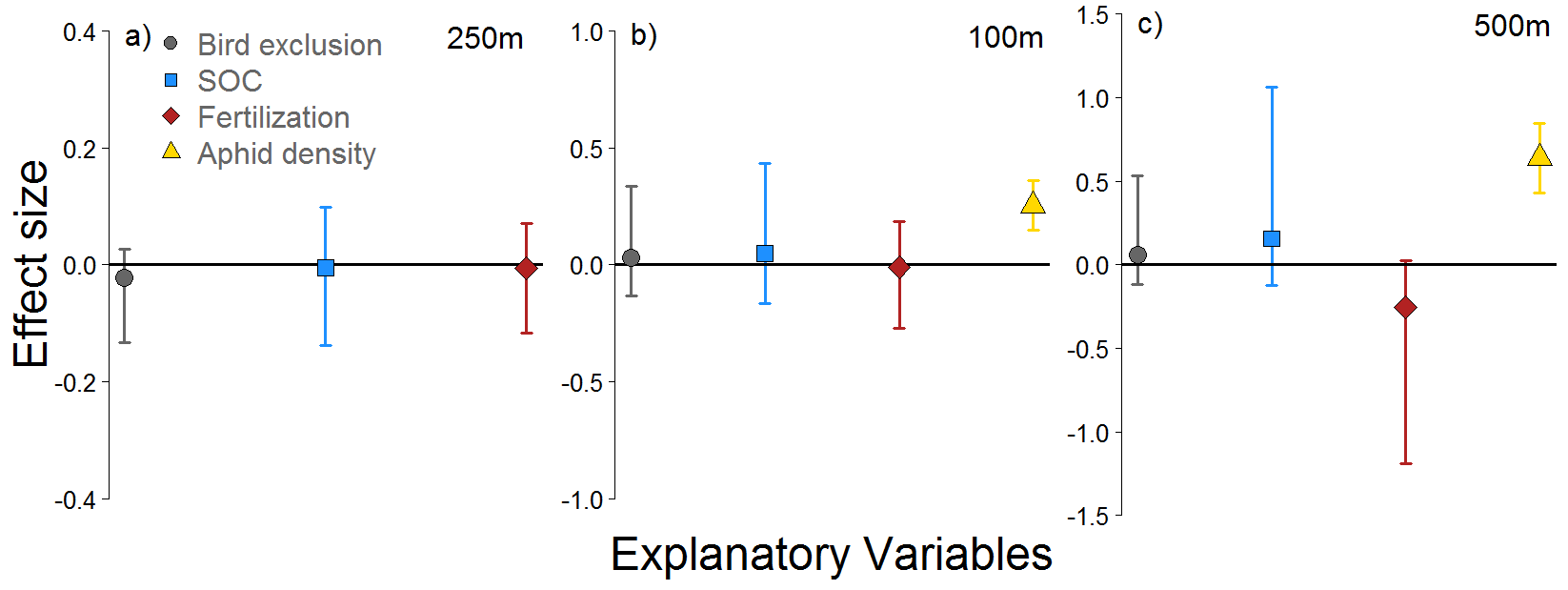


Fig. S1. Model-averaged effect sizes and 95% confidence intervals explaining a) biological control, b) predator and c) parasitoid density (based on day 15 only). Shown are effects of the predictor variable bird exclusion (negative/positive effect sizes indicate respective decreases/increases in the response with birds present), and the covariates soil organic carbon (SOC, high/low), fertilization (yes/no)and aphid included in models with Δ AICc < 7. Confidence intervals not including zero (horizontal line) indicate effect sizes of large importance. Plotted for most predictive scales (highest R² values).

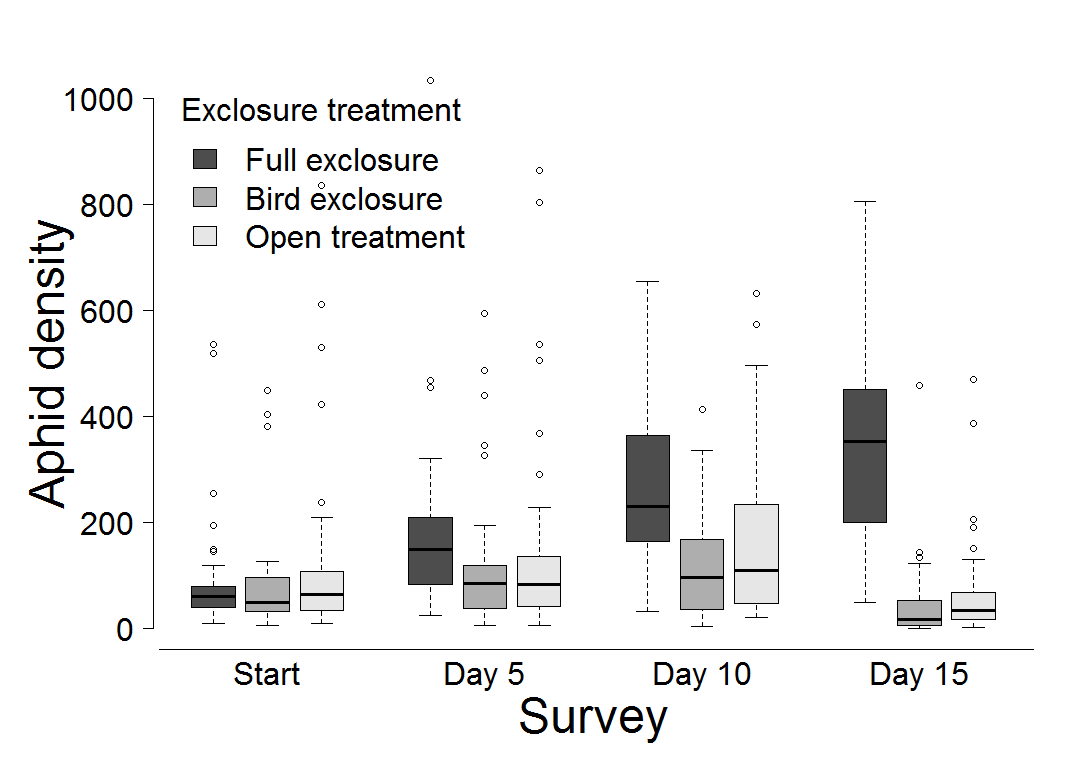


Figure S2: Effects of natural enemy exclusion and treatment duration on aphid densities on day zero (start of experiment), day 5, 10, and 15. The broad line, and the lower and upper bounds of each box correspond to median, 25% and 75% quartiles, respectively; open circles represent potential outliers. Initial aphid densities in exclusion treatments were similar (generalized linear mixed effects model of initial aphid densities (Day 0) as function of cage treatment; parameter estimates (95% confidence intervals) ‘Full Exclosure’ vs. ‘Bird Exclosure’: -0.105 (-0.451; 0.241); ‘Full Exclosure’ vs. ‘Open Treatment’: 0.0483 (-0.298; 0.394); ‘Bird Exclosure’ vs. ‘Open Treatment’: 0.154 (-0.193; 0.5)).