

Table 1. Total lepidopteran larval and pupal density (all species pooled), parasitized host density, and % parasitism of hosts/plant (seasonal means) by host, year, location, and treatment. For treatment, BR = broccoli, BW = buckwheat, D/F = dill and fennel combination, S/Y = sunflower and yarrow combination, and SE = standard error. Means within year by location followed by the same letters are not significantly different. ($P > 0.05$, LSD).

| Host | Year | Location | Treatment | Host/plant (mean±SE) | Parasitized host/plant (mean±SE) | % parasitism of host/plant (mean±SE) |
|--------------|--------|----------|-------------|-------------------------|-------------------------------------|---|
| <i>Larva</i> | 2010 | Athens | BR | 1.20 ± 0.10 | 0.10 ± 0.00 | 10.90 ± 2.40 |
| | | | BW | 1.20 ± 0.20 | 0.30 ± 0.10 | 31.70 ± 10.80 |
| | | | D/F | 1.60 ± 0.30 | 0.20 ± 0.10 | 10.80 ± 5.40 |
| | | | S/Y | 1.50 ± 0.20 | 0.30 ± 0.10 | 18.70 ± 4.20 |
| | | Tifton | BR | 2.60 ± 0.40 | 1.50 ± 0.2 | 52.20 ± 3.80 |
| | | | BW | 2.50 ± 0.20 | 1.50 ± 0.20 | 58.80 ± 3.80 |
| | | | D/F | 2.30 ± 0.20 | 1.30 ± 0.20 | 56.50 ± 4.30 |
| | | | S/Y | 1.80 ± 0.20 | 1.10 ± 0.20 | 56.70 ± 4.00 |
| | 2011 | Athens | BR | 1.40 ± 0.30 | 0.10 ± 0.00 | 14.00 ± 5.70 |
| | | | BW | 1.10 ± 0.20 | 0.10 ± 0.00 | 16.10 ± 5.60 |
| | | | D/F | 1.20 ± 0.20 | 0.10 ± 0.00 | 10.60 ± 4.50 |
| | | | S/Y | 1.10 ± 0.20 | 0.10 ± 0.00 | 11.00 ± 3.20 |
| | | Tifton | BR | 1.30 ± 0.200 | 0.70 ± 0.10 | 48.10 ± 6.40 |
| | | | BW | 1.10 ± 0.20 | 0.60 ± 0.10 | 43.00 ± 5.90 |
| | | | D/F | 1.00 ± 0.20 | 0.50 ± 0.10 | 51.90 ± 6.20 |
| | | | S/Y | 0.70 ± 0.10 | 0.40 ± 0.10 | 44.40 ± 7.00 |
| 2012 | Tifton | BR | 5.50 ± 0.80 | 1.20 ± 0.30 | 17.40 ± 3.10 | |
| | | BW | 5.80 ± 0.80 | 1.30 ± 0.30 | 18.20 ± 2.60 | |
| | | D/F | 5.70 ± 0.90 | 1.30 ± 0.30 | 14.70 ± 2.10 | |
| | | S/Y | 6.10 ± 0.80 | 1.30 ± 0.30 | 14.60 ± 2.20 | |

Table 1. (cont.)

| Host | Year | Location | Treatment | Host/plant (mean±SE) | Parasitized host/plant (mean±SE) | % parasitism of host/plant (mean±SE) | |
|-------------|--------|----------|-----------|-------------------------|-------------------------------------|---|----------------|
| <i>Pupa</i> | 2010 | Athens | BR | NA | NA | NA | |
| | | | BW | NA | NA | NA | |
| | | | D/F | NA | NA | NA | |
| | | | S/Y | NA | NA | NA | |
| | | Tifton | BR | 0.70 ± 0.10 | 0.50 ± 0.10 | 72.60 ± 5.90 | |
| | | | BW | 0.70 ± 0.10 | 0.60 ± 0.10 | 79.90 ± 4.80 | |
| | | | D/F | 0.70 ± 0.10 | 0.60 ± 0.10 | 83.30 ± 5.40 | |
| | | | S/Y | 0.80 ± 0.10 | 0.50 ± 0.10 | 62.90 ± 6.40 | |
| | | 2011 | Athens | BR | 0.50 ± 0.10 | 0.00 ± 0.00 | 2.50 ± 2.50b |
| | | | | BW | 0.60 ± 0.10 | 0.10 ± 0.00 | 15.60 ± 11.40b |
| | | | | D/F | 0.50 ± 0.10 | 0.20 ± 0.10 | 52.10 ± 16.50a |
| | | | | S/Y | 0.50 ± 0.10 | 0.10 ± 0.10 | 17.50 ± 8.10b |
| | Tifton | | BR | 0.40 ± 0.10 | 0.20 ± 0.00 | 38.10 ± 10.30 | |
| | | | BW | 0.30 ± 0.10 | 0.10 ± 0.00 | 30.20 ± 10.40 | |
| | | | D/F | 0.30 ± 0.10 | 0.10 ± 0.00 | 34.60 ± 12.00 | |
| | | | S/Y | 0.50 ± 0.10 | 0.20 ± 0.10 | 25.60 ± 9.60 | |
| | 2012 | Tifton | BR | 3.00 ± 0.40 | 2.00 ± 0.40 | 53.40 ± 6.20 | |
| | | | BW | 2.80 ± 0.40 | 1.70 ± 0.30 | 51.30 ± 5.90 | |
| | | | D/F | 3.10 ± 0.40 | 1.80 ± 0.40 | 43.10 ± 6.50 | |
| | | | S/Y | 2.80 ± 0.40 | 2.00 ± 0.30 | 54.50 ± 6.20 | |

Table 2. Total *Pieris rapae* (larva and pupa) density, parasitized *P. rapae* density, and % parasitism of *P. rapae* /plant (seasonal means) by host, year, location, and treatment. For treatment, BR = broccoli, BW = buckwheat, D/F = dill and fennel combination, S/Y = sunflower and yarrow combination, and SE = standard error. Means within year by location followed by the same letters are not significantly different. ($P > 0.05$, LSD).

| Host | Year | Location | Treatment | <i>P. rapae</i> /plant (mean±SE) | Parasitized <i>P. rapae</i> /plant (mean±SE) | % parasitism of <i>P. rapae</i> /plant (mean±SE) |
|-------|------|----------|-----------|-------------------------------------|--|--|
| Larva | 2010 | Athens | BR | 0.40 ± 0.10 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| | | | BW | 0.70 ± 0.20 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| | | | D/F | 0.80 ± 0.10 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| | | | S/Y | 0.70 ± 0.30 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| | | Tifton | BR | 0.30 ± 0.10 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| | | | BW | 0.30 ± 0.10 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| | | | D/F | 0.30 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| | | | S/Y | 0.30 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| | 2011 | Athens | BR | 1.50 ± 0.30 | 0.10 ± 0.00 | 4.60 ± 2.90 |
| | | | BW | 1.30 ± 0.30 | 0.10 ± 0.00 | 7.20 ± 5.20 |
| | | | D/F | 1.50 ± 0.20 | 0.10 ± 0.00 | 5.20 ± 3.10 |
| | | | S/Y | 1.10 ± 0.20 | 0.10 ± 0.00 | 6.70 ± 3.20 |
| | | Tifton | BR | 0.40 ± 0.10a | 0.00 ± 0.00 | 0.00 ± 0.00 |
| | | | BW | 0.30 ± 0.00b | 0.10 ± 0.00 | 4.20 ± 4.20 |
| | | | D/F | 0.20 ± 0.00b | 0.00 ± 0.00 | 0.00 ± 0.00 |
| | | | S/Y | 0.30 ± 0.00b | 0.00 ± 0.00 | 0.00 ± 0.00 |

Table 2 (cont.)

| Host | Year | Location | Treatment | <i>P. rapae</i> /plant (mean±SE) | Parasitized <i>P. rapae</i> /plant (mean±SE) | % parasitism of <i>P. rapae</i> /plant (mean±SE) |
|------------------|------|----------|-----------|-------------------------------------|--|--|
| Larva (cont.) | 2012 | Tifton | BR | 4.80 ± 0.70 | 1.10 ± 0.30 | 14.00 ± 2.50 |
| | | | BW | 4.90 ± 0.70 | 1.10 ± 0.20 | 15.90 ± 2.70 |
| | | | D/F | 4.80 ± 0.80 | 1.10 ± 0.30 | 14.80 ± 2.50 |
| | | | S/Y | 5.20 ± 0.70 | 1.20 ± 0.30 | 15.20 ± 2.50 |
| Pupa | 2010 | Athens | BR | NA | NA | NA |
| | | | BW | NA | NA | NA |
| | | | D/F | NA | NA | NA |
| | | | S/Y | NA | NA | NA |
| | | Tifton | BR | 0.20 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| | | | BW | 0.20 ± 0.00 | 0.20 ± 0.00 | 100.00 ± 0.00 |
| | | | D/F | NA | NA | NA |
| | | | S/Y | NA | NA | NA |
| | 2011 | Athens | BR | 0.50 ± 0.10 | 0.00 ± 0.00 | 2.50 ± 2.50b |
| | | | BW | 0.60 ± 0.10 | 0.10 ± 0.00 | 15.60 ± 11.40b |
| | | | D/F | 0.50 ± 0.10 | 0.20 ± 0.10 | 52.10 ± 16.50a |
| | | | S/Y | 0.50 ± 0.10 | 0.10 ± 0.10 | 18.90 ± 8.60b |

Table 2 (cont.)

| Host | Year | Location | Treatment | <i>P. rapae</i> /plant (mean±SE) | Parasitized <i>P. rapae</i> /plant (mean±SE) | % parasitism of <i>P. rapae</i> /plant (mean±SE) |
|-----------------|------|----------|-----------|-------------------------------------|--|--|
| Pupa (cont.) | | Tifton | BR | 0.40 ± 0.20 | 0.10 ± 0.10 | 25.00 ± 25.00 |
| | | | BW | 0.20 ± 0.00 | 0.00 ± 0.00 | 16.70 ± 16.70 |
| | | | D/F | 0.20 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| | | | S/Y | 0.20 ± 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| | 2012 | Tifton | BR | 2.90 ± 0.40 | 1.90 ± 0.40 | 49.60 ± 6.10 |
| | | | BW | 2.60 ± 0.30 | 1.60 ± 0.30 | 46.70 ± 6.40 |
| | | | D/F | 2.70 ± 0.40 | 1.60 ± 0.40 | 42.10 ± 6.70 |
| | | | S/Y | 2.60 ± 0.40 | 1.80 ± 0.30 | 50.90 ± 6.60 |

Table 3. Total *Plutella xylostella* (larva and pupa) density, parasitized *P. rapae* density, and % parasitism of *P. rapae*/plant (the whole seasonal mean) by host, year, location and treatment. For treatment, BR = broccoli, BW = buckwheat, D/F = dill and fennel combination, S/Y = sunflower and yarrow combination, and SE = standard error. Means within year by location followed by the same letters are not significantly different. ($P > 0.05$, LSD).

| Host | Year | Location | Treatment | <i>P. xylostella</i> /plant (mean±SE) | Parasitized <i>P. xylostella</i> /plant (mean±SE) | % parasitism of <i>P. xylostella</i> /plant (mean±SE) |
|-------|--------|----------|-------------|--|---|---|
| Larva | 2010 | Athens | BR | 1.10 ± 0.10 | 0.10 ± 0.00 | 12.60 ± 2.80 |
| | | | BW | 0.90 ± 0.20 | 0.30 ± 0.10 | 42.20 ± 11.10 |
| | | | D/F | 1.20 ± 0.20 | 0.20 ± 0.10 | 13.30 ± 5.70 |
| | | | S/Y | 1.10 ± 0.20 | 0.30 ± 0.10 | 27.40 ± 6.90 |
| | | Tifton | BR | 2.40 ± 0.40 | 1.50 ± 0.20 | 59.40 ± 4.20 |
| | | | BW | 2.30 ± 0.20 | 1.50 ± 0.20 | 64.90 ± 3.70 |
| | | | D/F | 2.10 ± 0.20 | 1.30 ± 0.20 | 61.90 ± 4.30 |
| | | | S/Y | 1.70 ± 0.20 | 1.10 ± 0.20 | 64.70 ± 5.10 |
| | 2011 | Athens | BR | 0.30 ± 0.00b | 0.10 ± 0.10 | 31.00 ± 11.20 |
| | | | BW | 0.40 ± 0.10b | 0.10 ± 0.00 | 39.10 ± 11.20 |
| | | | D/F | 0.40 ± 0.10b | 0.10 ± 0.00 | 19.80 ± 8.00 |
| | | | S/Y | 0.50 ± 0.10a | 0.10 ± 0.00 | 14.20 ± 4.90 |
| | | Tifton | BR | 1.10 ± 0.20 | 0.70 ± 0.10 | 62.40 ± 7.20 |
| | | | BW | 1.10 ± 0.20 | 0.70 ± 0.10 | 62.00 ± 6.80 |
| | | | D/F | 1.00 ± 0.20 | 0.60 ± 0.10 | 66.80 ± 6.20 |
| | | | S/Y | 0.70 ± 0.10 | 0.40 ± 0.10 | 63.60 ± 8.10 |
| 2012 | Tifton | BR | 0.30 ± 0.00 | 0.20 ± 0.00 | 65.20 ± 9.60 | |
| | | BW | 0.30 ± 0.00 | 0.30 ± 0.00 | 85.50 ± 5.20 | |
| | | D/F | 0.40 ± 0.10 | 0.30 ± 0.00 | 71.20 ± 8.70 | |
| | | S/Y | 0.70 ± 0.10 | 0.40 ± 0.10 | 58.60 ± 8.20 | |

Table 3 (cont.)

| Host | Year | Location | Treatment | <i>P. xylostella</i> /plant (mean±SE) | Parasitized <i>P. xylostella</i> /plant (mean±SE) | % parasitism of <i>P. xylostella</i> /plant (mean±SE) |
|------|--------|----------|-------------|--|---|---|
| Pupa | 2010 | Athens | BR | NA | NA | NA |
| | | | BW | NA | NA | NA |
| | | | D/F | NA | NA | NA |
| | | | S/Y | NA | NA | NA |
| | | Tifton | BR | 0.70 ± 0.10 | 0.50 ± 0.10 | 73.60 ± 5.80 |
| | | | BW | 0.70 ± 0.10 | 0.60 ± 0.10 | 79.90 ± 4.80 |
| | | | D/F | 0.70 ± 0.10 | 0.60 ± 0.10 | 83.30 ± 5.40 |
| | | | S/Y | 0.80 ± 0.10 | 0.50 ± 0.10 | 62.90 ± 6.40 |
| | 2011 | Athens | BR | NA | NA | NA |
| | | | BW | NA | NA | NA |
| | | | D/F | NA | NA | NA |
| | | | S/Y | NA | NA | NA |
| | | Tifton | BR | 0.30 ± 0.00 | 0.20 ± 0.00 | 41.00 ± 11.90 |
| | | | BW | 0.30 ± 0.10 | 0.10 ± 0.00 | 40.60 ± 13.80 |
| | | | D/F | 0.30 ± 0.00 | 0.10 ± 0.00 | 42.40 ± 13.40 |
| | | | S/Y | 0.40 ± 0.10 | 0.20 ± 0.10 | 21.40 ± 8.80 |
| 2012 | Tifton | BR | 0.40 ± 0.00 | 0.30 ± 0.10 | 69.80 ± 11.00 | |
| | | BW | 0.30 ± 0.10 | 0.30 ± 0.10 | 71.90 ± 10.20 | |
| | | D/F | 0.40 ± 0.10 | 0.30 ± 0.10 | 77.30 ± 8.10 | |
| | | S/Y | 0.30 ± 0.10 | 0.30 ± 0.00 | 91.80 ± 5.40 | |

Table 4. Broccoli head diameter/plant (cm) by year, location, and harvest. Where present, the same letters following means within rows signify means that are not significantly different. ($P > 0.05$, LSD).

| Year | Location | Harvest no. | Flower treatment (no. plants) | | | |
|------|----------|-------------|-------------------------------|---------------------|---------------------|----------------------|
| | | | Broccoli | Buckwheat | Dill/Fennel | Sunflower/Yarrow |
| 2010 | Athens | 1 | 10.7 ± 0.55 (93) | 10.7 ± 0.46 (84) | 9.2 ± 0.41 (83) | 10.5 ± 0.52 (71) |
| | | 2 | 9.1 ± 0.53 (68) | 8.0 ± 0.33 (62) | 9.3 ± 0.42 (64) | 9.3 ± 0.32 (79) |
| | | 3 | 8.3 ± 0.46 (81) | 7.8 ± 0.38 (80) | 7.8 ± 0.46 (66) | 7.9 ± 0.32 (89) |
| | | 4 | 7.3 ± 0.40 (56) | 6.6 ± 0.36 (55) | 6.3 ± 0.35 (56) | 8.4 ± 0.49 (70) |
| | Tifton | 1 | 9.5 ± 0.32 (92) | 9.0 ± 0.29 (90) | 9.3 ± 0.26 (91) | 9.3 ± 0.32 (91) |
| | | 2 | 8.7 ± 0.32 (95) | 8.5 ± 0.23 (95) | 9.0 ± 0.27 (96) | 8.4 ± 0.29 (94) |
| | | 3 | 5.3 ± 0.17 (96) | 5.5 ± 0.17 (96) | 10.2 ± 4.84 (96) | 5.1 ± 0.13 (96) |
| 2011 | Athens | 1 | 8.7 ± 0.19 (22) | 8.6 ± 0.17 (23) | 9.0 ± 0.36 (14) | 8.6 ± 0.18 (25) |
| | | 2 | 10.3 ± 0.16 (63) | 10.0 ± 0.17 (72) | 11.4 ± 0.36 (25) | 10.0 ± 0.19 (75) |
| | Tifton | 1 | 16.0 ± 0.43 (48) | 16.2 ± 0.42 (48) | 16.7 ± 0.43 (48) | 17.1 ± 0.52 (48) |
| | | 2 | 12.6 ± 0.34 (96) | 11.7 ± 0.36 (96) | 12.0 ± 0.31 (96) | 24.9 ± 13.25 (96) |
| | | 3 | 7.5 ± 0.20 (82) | 8.8 ± 0.27 (83) | 8.4 ± 0.26 (86) | 8.9 ± 0.19 (91) |
| | | 4 | 8.5 ± 0.61 ab | 8.3 ± 0.37 b | 7.4 ± 0.32 c | 9.0 ± 0.43 a |

(19)

(26)

(45)

(21)

Table 4 (cont.)

| Year | Location | Harvest no. | Flower treatment (no. plants) | | | |
|------|----------|----------------|-------------------------------|---------------------|---------------------|---------------------|
| | | | Broccoli | Buckwheat | Dill/Fennel | Sunflower/Yarrow |
| 2012 | Tifton | 1 | 13.2 ± 0.43 (95) | 12.5 ± 0.54 (71) | 12.4 ± 0.41 (92) | 11.5 ± 0.46 (94) |
| | | 2 | 11.9 ± 0.34 (96) | 11.2 ± 0.31 (95) | 11.1 ± 0.35 (96) | 11.0 ± 0.28 (96) |

Fig. 1. Incidence of lepidopteran host species in broccoli trials as percentage of overall numbers collected, by year and location. “Others” are *Trichoplusia ni* (Hübner), *Spodoptera exigua* (Hübner), and *Spodoptera eridania* (Cramer).

Fig. 2. Relative abundance of parasitoid taxa reared from *P. xylostella* larvae and pupae as percentage of overall parasitoid numbers reared from this species, by year and location.

Fig. 3. Relative abundance of parasitoid taxa reared from *P. rapae* larvae and pupae as percentage of overall parasitoid numbers reared from this species, by year and location.

Figure 1

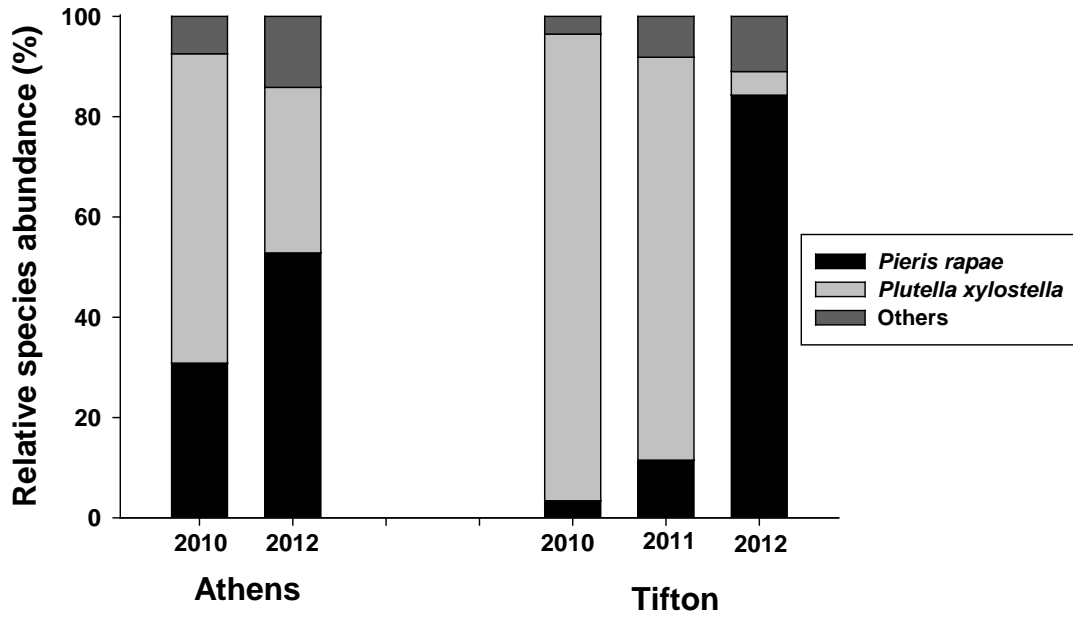


Figure 2

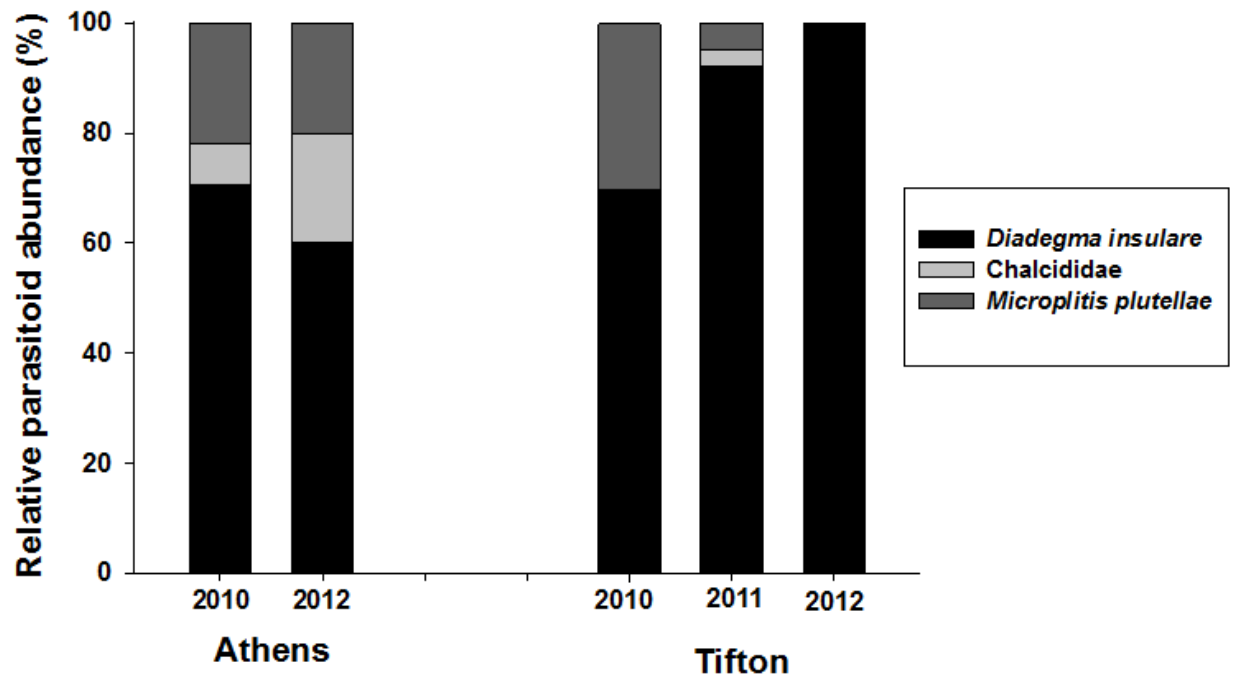
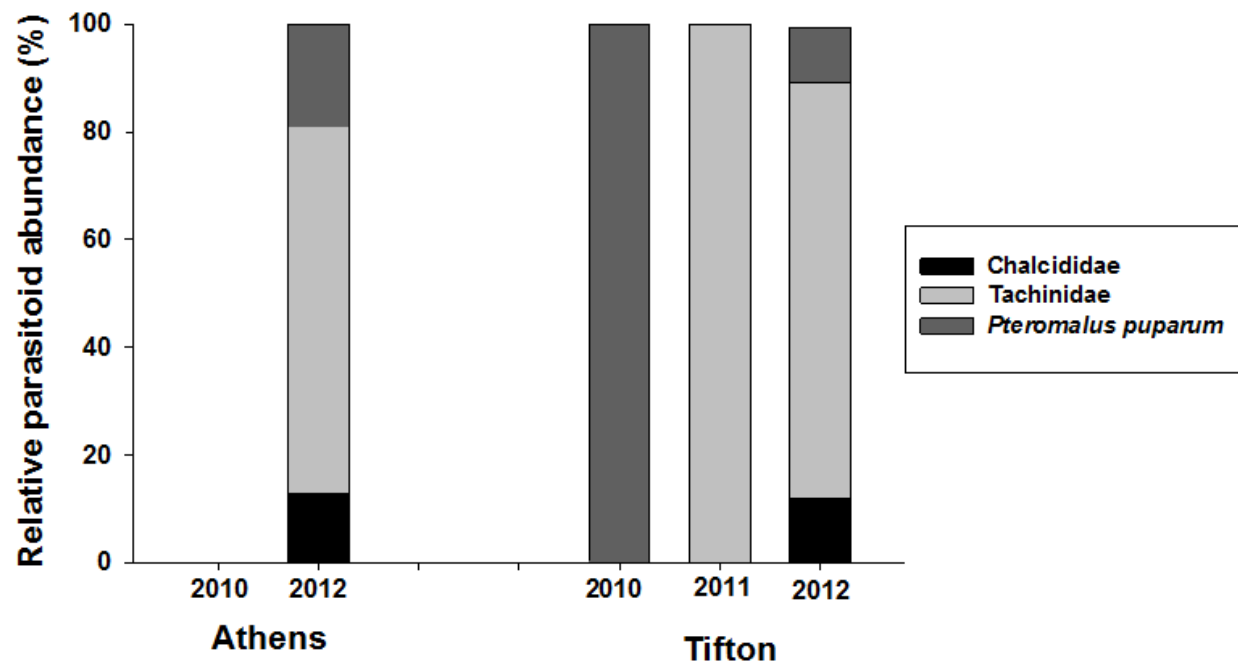


Figure 3



Appendix

Table A1. Treatment ANOVA table for total lepidopteran larval and pupal (all species pooled), by host, year, and location. P value followed by * is significant at $\alpha = 0.05$.

| Variable | Host | Year | Location | DF | SS | Mean Square | F Value | Pr > F | |
|------------------|------------------------|--------|----------|--------|--------|-------------|---------|--------|------|
| Total host/plant | Larva | 2010 | Athens | 3,9 | 1.08 | 0.36 | 0.60 | 0.63 | |
| | | | Tifton | 3,9 | 8.43 | 2.81 | 0.88 | 0.49 | |
| | | 2011 | Athens | 3,9 | 0.22 | 0.07 | 0.07 | 0.07 | 0.98 |
| | | | Tifton | 3,9 | 0.70 | 0.23 | 0.24 | 0.24 | 0.87 |
| | | 2012 | Tifton | 3,9 | 2.55 | 0.85 | 0.12 | 0.95 | |
| | | Pupa | 2010 | Athens | NA | NA | NA | NA | NA |
| | Tifton | | | 3,9 | 0.10 | 0.03 | 0.31 | 0.82 | |
| | 2011 | | Athens | 3,9 | 0.06 | 0.02 | 0.25 | 0.86 | |
| | | | Tifton | 3,9 | 0.01 | 0.00 | 0.05 | 0.99 | |
| | 2012 | | Tifton | 3,9 | 0.56 | 0.19 | 0.13 | 0.94 | |
| | Parasitized host/plant | | Larva | 2010 | Athens | 3,9 | 0.20 | 0.07 | 1.63 |
| | | Tifton | | | 3,9 | 2.35 | 0.78 | 0.64 | 0.61 |
| 2011 | | Athens | | 3,9 | 0.00 | 0.00 | 0.01 | 1.00 | |
| | | Tifton | | 3,9 | 0.06 | 0.02 | 0.07 | 0.97 | |
| 2012 | | Tifton | | 3,9 | 0.13 | 0.04 | 0.03 | 0.99 | |

Table A1 (cont.)

| Variable | Host | Year | Location | DF | SS | Mean Square | F Value | Pr > F |
|-----------------------------------|--------|--------|----------|--------|------|-------------|---------|--------|
| Parasitized host/plant (cont.) | Pupa | 2010 | Athens | NA | NA | NA | NA | NA |
| | | | Tifton | 3,9 | 0.03 | 0.01 | 0.26 | 0.86 |
| | | 2011 | Athens | 3,9 | 0.10 | 0.03 | 1.46 | 0.29 |
| Tifton | 3,9 | | 0.03 | 0.01 | 0.40 | 0.76 | | |
| | | 2012 | Tifton | 3,9 | 0.89 | 0.30 | 0.41 | 0.75 |
| % parasitism of host/plant | Larva | 2010 | Athens | 3,9 | 0.52 | 0.17 | 2.05 | 0.18 |
| | | | Tifton | 3,9 | 0.12 | 0.04 | 0.54 | 0.66 |
| | | 2011 | Athens | 3,9 | 0.15 | 0.05 | 0.33 | 0.80 |
| | | | Tifton | 3,9 | 0.59 | 0.20 | 1.75 | 0.23 |
| | | 2012 | Tifton | 3,9 | 0.11 | 0.04 | 0.44 | 0.73 |
| | | Pupa | 2010 | Athens | NA | NA | NA | NA |
| | Tifton | | | 3,9 | 0.61 | 0.20 | 1.22 | 0.36 |
| | | 2011 | Athens | 3,9 | 1.91 | 0.64 | 4.46 | 0.04* |
| Tifton | 3,9 | | 0.39 | 0.13 | 1.14 | 0.39 | | |
| | 2012 | Tifton | 3,9 | 1.27 | 0.42 | 1.30 | 0.28 | |

Table A2. Treatment ANOVA table for total *Pieris rapae* (larvae and pupae), by host, year, and location. P value followed by * is significant at $\alpha = 0.05$.

| Variable | Host | Year | Location | DF | SS | Mean Square | F Value | Pr > F | |
|-------------------|-------------------------|--------|----------|--------|--------|-------------|---------|--------|----|
| Total hosts/plant | Larva | 2010 | Athens | 3,7 | 1.21 | 0.40 | 3.12 | 0.10 | |
| | | | Tifton | 3,6 | 0.03 | 0.01 | 1.10 | 0.42 | |
| | | 2011 | Athens | 3,9 | 0.78 | 0.26 | 0.21 | 0.89 | |
| | | | Tifton | 3,9 | 0.04 | 0.01 | 4.15 | 0.04* | |
| | | 2012 | Tifton | 3,9 | 1.41 | 0.47 | 0.10 | 0.96 | |
| | | Pupa | 2010 | Athens | NA | NA | NA | NA | NA |
| | Tifton | | | 1,0 | 0.00 | 0.00 | NA | NA | |
| | 2011 | | Athens | 3,9 | 0.06 | 0.02 | 0.24 | 0.86 | |
| | | | Tifton | 3,4 | 0.03 | 0.01 | 0.19 | 0.90 | |
| | 2012 | | Tifton | 3,9 | 1.13 | 0.38 | 0.33 | 0.81 | |
| | Parasitized hosts/plant | | Larva | 2010 | Athens | 3,7 | 0.00 | 0.00 | NA |
| | | Tifton | | | 3,6 | 0.00 | 0.00 | NA | NA |
| 2011 | | Athens | | 3,9 | 0.00 | 0.00 | 0.02 | 1.00 | |
| | | Tifton | | 3,9 | 0.00 | 0.00 | 0.19 | 0.90 | |
| 2012 | | Tifton | | 3,9 | 0.11 | 0.04 | 0.02 | 0.99 | |

Table A2 (cont.)

| Variable | Host | Year | Location | DF | SS | Mean Square | F Value | Pr > F |
|------------------------------------|----------------------------|--------|----------|--------|------|-------------|---------|--------|
| Parasitized hosts/plant (cont.) | Pupa | 2010 | Athens | NA | NA | NA | NA | NA |
| | | | Tifton | 1,0 | 0.02 | 0.02 | NA | NA |
| | | 2011 | Athens | 3,9 | 0.13 | 0.04 | 1.79 | 0.22 |
| | Tifton | | 3,4 | 0.01 | 0.00 | 0.68 | 0.61 | |
| | 2012 | Tifton | 3,9 | 0.84 | 0.28 | 0.39 | 0.77 | |
| | % parasitism of host/plant | Larva | 2010 | Athens | 3,7 | 0.00 | 0.00 | NA |
| Tifton | | | | 3,6 | 0.00 | 0.00 | NA | NA |
| 2011 | | | Athens | 3,9 | 0.01 | 0.00 | 0.03 | 0.99 |
| | | | Tifton | 3,9 | 0.01 | 0.00 | 0.19 | 0.90 |
| 2012 | | | Tifton | 3,9 | 0.03 | 0.01 | 0.38 | 0.77 |
| Pupa | | | 2010 | Athens | NA | NA | NA | NA |
| | | Tifton | | 1,0 | 1.23 | 1.23 | NA | NA |
| | | 2011 | Athens | 3,9 | 1.90 | 0.63 | 4.43 | 0.04* |
| | | | Tifton | 3,4 | 0.78 | 0.26 | 0.68 | 0.61 |
| 2012 | | Tifton | 3,9 | 0.22 | 0.07 | 2.22 | 0.16 | |

Table A3. Treatment ANOVA table for total *Plutella xylostella* (larvae and pupae) density, by host, year, and location. P value followed by * is significant at $\alpha = 0.05$

| Variable | Host | Year | Location | DF | SS | Mean Square | F Value | Pr > F |
|-------------------------|--------|--------|----------|--------|------|-------------|---------|--------|
| Total host/plant | Larva | 2010 | Athens | 3,9 | 0.20 | 0.07 | 0.19 | 0.90 |
| | | | Tifton | 3,9 | 7.39 | 2.46 | 0.74 | 0.55 |
| | | 2011 | Athens | 3,9 | 0.45 | 0.15 | 5.54 | 0.02* |
| | | | Tifton | 3,9 | 0.22 | 0.07 | 0.07 | 0.97 |
| | | 2012 | Tifton | 3,9 | 0.15 | 0.05 | 0.47 | 0.71 |
| | | Pupa | 2010 | Athens | NA | NA | NA | NA |
| | Tifton | | | 3,9 | 0.12 | 0.04 | 0.38 | 0.77 |
| | 2011 | | Athens | NA | NA | NA | NA | NA |
| | | | Tifton | 3,9 | 0.07 | 0.02 | 0.34 | 0.79 |
| | 2012 | Tifton | 3,9 | 0.11 | 0.04 | 0.20 | 0.90 | |
| Parasitized hosts/plant | Larva | 2010 | Athens | 3,9 | 0.30 | 0.10 | 2.81 | 0.10 |
| | | | Tifton | 3,9 | 2.35 | 0.78 | 0.64 | 0.61 |
| | | 2011 | Athens | 3,9 | 0.02 | 0.01 | 0.24 | 0.87 |
| | | | Tifton | 3,9 | 0.06 | 0.02 | 0.07 | 0.98 |
| | | 2012 | Tifton | 3,9 | 0.04 | 0.01 | 1.21 | 0.36 |

Table A3 (cont.)

| Variable | Host | Year | Location | DF | SS | Mean Square | F Value | Pr > F | |
|------------------------------------|-------|------|----------|--------|------|-------------|---------|--------|------|
| Parasitized hosts/plant (cont.) | Pupa | 2010 | Athens | NA | NA | NA | NA | NA | |
| | | | Tifton | 3,9 | 0.04 | 0.01 | 0.32 | 0.81 | |
| | | 2011 | Athens | NA | NA | NA | NA | NA | NA |
| Tifton | 3,9 | | 0.06 | 0.02 | 0.77 | 0.54 | | | |
| | | 2012 | Tifton | 3,9 | 0.14 | 0.05 | 0.38 | 0.77 | |
| | | | 2010 | Athens | 3,9 | 1.19 | 0.40 | 2.44 | 0.13 |
| | | | | Tifton | 3,9 | 0.15 | 0.05 | 0.67 | 0.59 |
| % parasitism of hosts/plant | Larva | 2011 | Athens | 3,9 | 1.09 | 0.36 | 0.59 | 0.63 | |
| | | | Tifton | 3,9 | 0.53 | 0.18 | 0.76 | 0.54 | |
| | | 2012 | Tifton | 3,9 | 0.70 | 0.23 | 0.65 | 0.60 | |
| | Pupa | 2010 | Athens | NA | NA | NA | NA | NA | |
| | | | Tifton | 3,9 | 0.62 | 0.21 | 1.29 | 0.34 | |
| | | 2011 | Athens | NA | NA | NA | NA | NA | NA |
| Tifton | 3,9 | | 1.32 | 0.44 | 1.70 | 0.24 | | | |
| | | 2012 | Tifton | 3,9 | 0.57 | 0.19 | 0.43 | 0.74 | |