

## Supplemental Materials

**Supplemental Materials Table S1.** Percent relative abundance of stink bug species (Hemiptera: Pentatomidae) according to total number of adults and total number of nymphs captured in pheromone-baited traps from 2016 – 2018 in Irwin County, GA, USA.

| Species                                  | % Relative Abundance |        |
|------------------------------------------|----------------------|--------|
|                                          | Adults               | Nymphs |
| <i>Banasa euchlora</i> (Stål)            | 0.03                 | 0      |
| <i>Banasa dimidiata</i> (Say)            | 0.07                 | 0      |
| <i>Brochymena arborea</i> (Say)          | 0.14                 | 0.33   |
| <i>Chinavia hilaris</i> (Say)            | 0.72                 | 21.7   |
| <i>Euschistus quadrator</i> (Rolston)    | 0.26                 | 0.13   |
| <i>Euschistus ictericus</i> (L.)         | 1.5                  | 1.6    |
| <i>Euschistus obscurus</i> (Palisot)     | 0.21                 | 0.38   |
| <i>Euschistus servus</i> (Say)           | 74.1                 | 28.4   |
| <i>Euschistus tristigmus</i> (Say)       | 22.5                 | 45.9   |
| <i>Hymenarchys nervosa</i> (Say)         | 0.07                 | 0      |
| <i>Holocostethus limbolarius</i> (Stål)  | 0.01                 | 0.02   |
| <i>Menecles insertus</i> (Stål)          | 0.02                 | 0.02   |
| <i>Mormidea lugens</i> (F.)              | 0.03                 | 0      |
| <i>Nezara viridula</i> (L.)              | 0.13                 | 1.1    |
| <i>Oebalus pugnax</i> (F.)               | 0.11                 | 0.03   |
| <i>Piezodorus guildinii</i> (Westwood)   | 0.005                | 0      |
| <i>Proxys punctulatus</i> (Palisot)      | 0.03                 | 0      |
| <i>Thyanta custator accerra</i> (McAtee) | 0.07                 | 0.14   |

**Supplemental Materials Table S2.** Stink bug adult and nymph aggregation indices ( $I_a$ )<sup>a</sup> in Irwin County, GA, USA during 2016 based on SADIE spatial analysis.

| Date     | <i>E. servus</i> |             | <i>E. tristigmus</i> |             | <i>C. hilaris</i> |             | Available host crop <sup>b</sup> |
|----------|------------------|-------------|----------------------|-------------|-------------------|-------------|----------------------------------|
|          | Adult            | Nymph       | Adult                | Nymph       | Adult             | Nymph       |                                  |
| 6/10/16  | 0.90             | 1.37        | 1.12                 | 1.15        | 1.08              | 1.03        | CO                               |
| 6/17/16  | 0.80             | 0.88        | 1.12                 | <b>1.57</b> | 0.75              | 0.89        | CO                               |
| 6/24/16  | 1.02             | 0.88        | 1.33                 | 1.06        | 0.77              | 0.88        | CO                               |
| 7/1/16   | 1.02             | 1.02        | 0.92                 | 0.81        | -                 | 0.80        | CO                               |
| 7/8/16   | 1.19             | 0.94        | 1.28                 | 1.07        | 0.76              | 1.16        | CO                               |
| 7/15/16  | 1.22             | 1.03        | <b>1.53</b>          | 1.38        | 1.03              | 1.13        | CO, PE                           |
| 7/22/16  | 1.07             | 0.92        | 1.27                 | 1.33        | 1.08              | 0.85        | CO, PE, CT                       |
| 7/29/16  | 0.97             | 0.90        | 0.93                 | 1.09        | 1.10              | 0.89        | CO, PE, CT                       |
| 8/5/16   | 0.99             | 1.22        | 1.37                 | 0.90        | 1.67              | 0.94        | PE, CT                           |
| 8/12/16  | 1.16             | 0.96        | 1.33                 | 1.07        | 1.45              | 0.78        | PE, CT                           |
| 8/19/16  | 1.28             | 1.30        | 1.22                 | 0.94        | 1.41              | 1.17        | PE, CT                           |
| 8/26/16  | 1.06             | 0.98        | 1.28                 | 1.37        | 0.97              | <b>1.57</b> | PE, CT                           |
| 9/2/16   | 1.07             | 1.03        | 1.33                 | 1.16        | -                 | <b>1.72</b> | PE, CT                           |
| 9/9/16   | 1.01             | 1.01        | 0.91                 | 1.38        | 1.39              | 1.04        | PE                               |
| 9/16/16  | 1.15             | 1.09        | 1.04                 | 1.09        | 1.16              | 1.26        | PE                               |
| 9/23/16  | 1.52             | 0.95        | 1.26                 | 1.40        | 1.23              | 1.07        |                                  |
| 9/30/16  | 1.03             | 0.75        | 1.17                 | 0.89        | 0.76              | 1.07        |                                  |
| 10/7/16  | 1.19             | 1.29        | 1.32                 | 0.78        | 1.00              | 0.84        |                                  |
| 10/14/16 | 1.46             | <b>1.45</b> | 1.15                 | 1.00        | 0.92              | 1.08        |                                  |
| 10/21/16 | <b>2.61</b>      | 1.36        | 1.02                 | 0.86        | 1.27              | 1.26        |                                  |
| 10/28/16 | 1.27             | 0.74        | 1.22                 | 0.87        | 0.93              | 0.93        |                                  |
| 11/4/16  | 1.05             | 0.95        | 1.14                 | 0.75        | 0.91              | 1.09        |                                  |
| 11/11/16 | 1.06             | 1.15        | 1.09                 | 1.32        | 1.30              | 1.37        |                                  |
| 11/18/16 | 0.96             | 1.27        | <b>1.55</b>          | 1.15        | 0.79              | <b>1.58</b> |                                  |
| 11/25/16 | 1.21             | <b>1.94</b> | 1.25                 | 1.21        | 0.77              | -           |                                  |
| 12/2/16  | 0.97             | 1.06        | 1.11                 | 1.01        | -                 | -           |                                  |
| 12/9/16  | 1.13             | 1.43        | 1.01                 | 0.90        | -                 | -           |                                  |

<sup>a</sup>  $I_a$  values in bold indicate that  $P_a < 0.05$ .

<sup>b</sup> Peanut (PE), cotton (CT), and corn (CO).

**Supplemental Materials Table S3.** Stink bug adult and nymph aggregation indices ( $I_a$ )<sup>a</sup> in Irwin County, GA, USA during 2017 based on SADIE spatial analysis.

| Date    | <i>E. servus</i> |             | <i>E. tristigmus</i> |             | <i>C. hilaris</i> |       | Available host crop <sup>b</sup> |
|---------|------------------|-------------|----------------------|-------------|-------------------|-------|----------------------------------|
|         | Adult            | Nymph       | Adult                | Nymph       | Adult             | Nymph |                                  |
| 3/20/17 | <b>1.61</b>      | 1.02        | 1.26                 | -           | 1.39              | 0.73  |                                  |
| 3/27/17 | 1.17             | <b>1.53</b> | 1.29                 | -           | 0.86              | -     |                                  |
| 4/3/17  | <b>2.28</b>      | -           | 1.37                 | -           | -                 | -     |                                  |
| 4/10/17 | 1.15             | 1.07        | <b>1.47</b>          | 1.11        | -                 | 0.78  |                                  |
| 4/17/17 | 0.99             | -           | 1.26                 | 0.92        | 0.78              | -     |                                  |
| 4/24/17 | 1.00             | 0.72        | 1.11                 | -           | -                 | -     |                                  |
| 5/1/17  | 1.20             | 1.03        | 0.87                 | 1.15        | -                 | 0.76  |                                  |
| 5/8/17  | 1.08             | 1.30        | 0.78                 | 0.88        | -                 | -     |                                  |
| 5/15/17 | 1.13             | <b>1.36</b> | 1.05                 | 1.28        | 1.08              | 1.08  |                                  |
| 5/22/17 | 1.04             | 0.96        | <b>1.49</b>          | 0.81        | -                 | -     |                                  |
| 5/29/17 | 1.00             | 0.89        | 1.08                 | 1.41        | -                 | 0.93  |                                  |
| 6/6/17  | 0.97             | 0.82        | 0.84                 | 0.90        | 0.85              | -     | CO                               |
| 6/12/17 | 1.01             | 0.80        | 0.93                 | 1.18        | 0.75              | 0.78  | CO                               |
| 6/19/17 | <b>1.52</b>      | 0.96        | 1.32                 | 0.96        | 0.75              | -     | CO                               |
| 6/26/17 | <b>1.48</b>      | 0.89        | 1.17                 | 1.27        | -                 | 1.15  | CO                               |
| 7/3/17  | <b>1.45</b>      | 0.87        | 1.10                 | 1.01        | 0.77              | 0.98  | CO                               |
| 7/10/17 | 1.07             | 0.84        | 1.31                 | 0.96        | -                 | -     | CO                               |
| 7/17/17 | 1.26             | 1.31        | 1.09                 | 0.85        | -                 | 0.77  | CO, PE                           |
| 7/24/17 | 1.25             | 1.08        | 1.09                 | <b>1.42</b> | 0.95              | -     | CO, PE, CT                       |
| 7/31/17 | <b>1.92</b>      | 1.06        | 1.23                 | 0.86        | 0.83              | 0.75  | CO, PE, CT                       |
| 8/7/17  | <b>2.36</b>      | 0.97        | 0.82                 | 1.09        | -                 | 1.13  | PE, CT                           |
| 8/14/17 | <b>1.43</b>      | <b>1.57</b> | 1.04                 | 1.11        | 0.82              | -     | PE, CT                           |
| 8/21/17 | 1.28             | 1.03        | 0.90                 | 1.14        | 1.02              | 0.94  | CT                               |
| 8/28/17 | 1.27             | 0.95        | 0.95                 | 1.07        | 0.77              | 0.77  | CT                               |

<sup>a</sup>  $I_a$  values in bold indicate that  $P_a < 0.05$ .

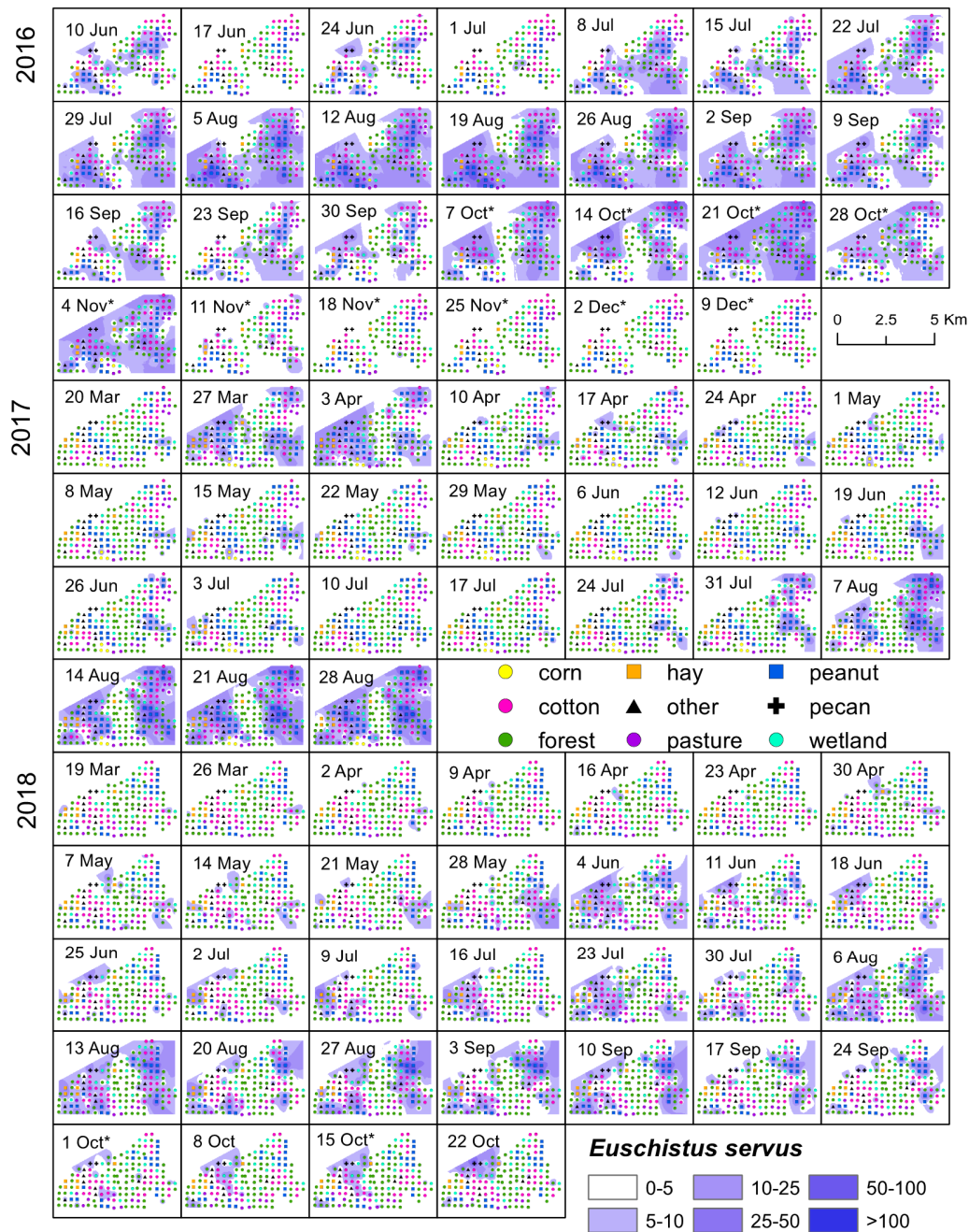
<sup>b</sup> Peanut (PE), cotton (CT), and corn (CO).

**Supplemental Materials Table S4.** Stink bug adult and nymph aggregation indices ( $I_a$ )<sup>a</sup> in Irwin County, GA, USA during 2018 based on SADIE spatial analysis.

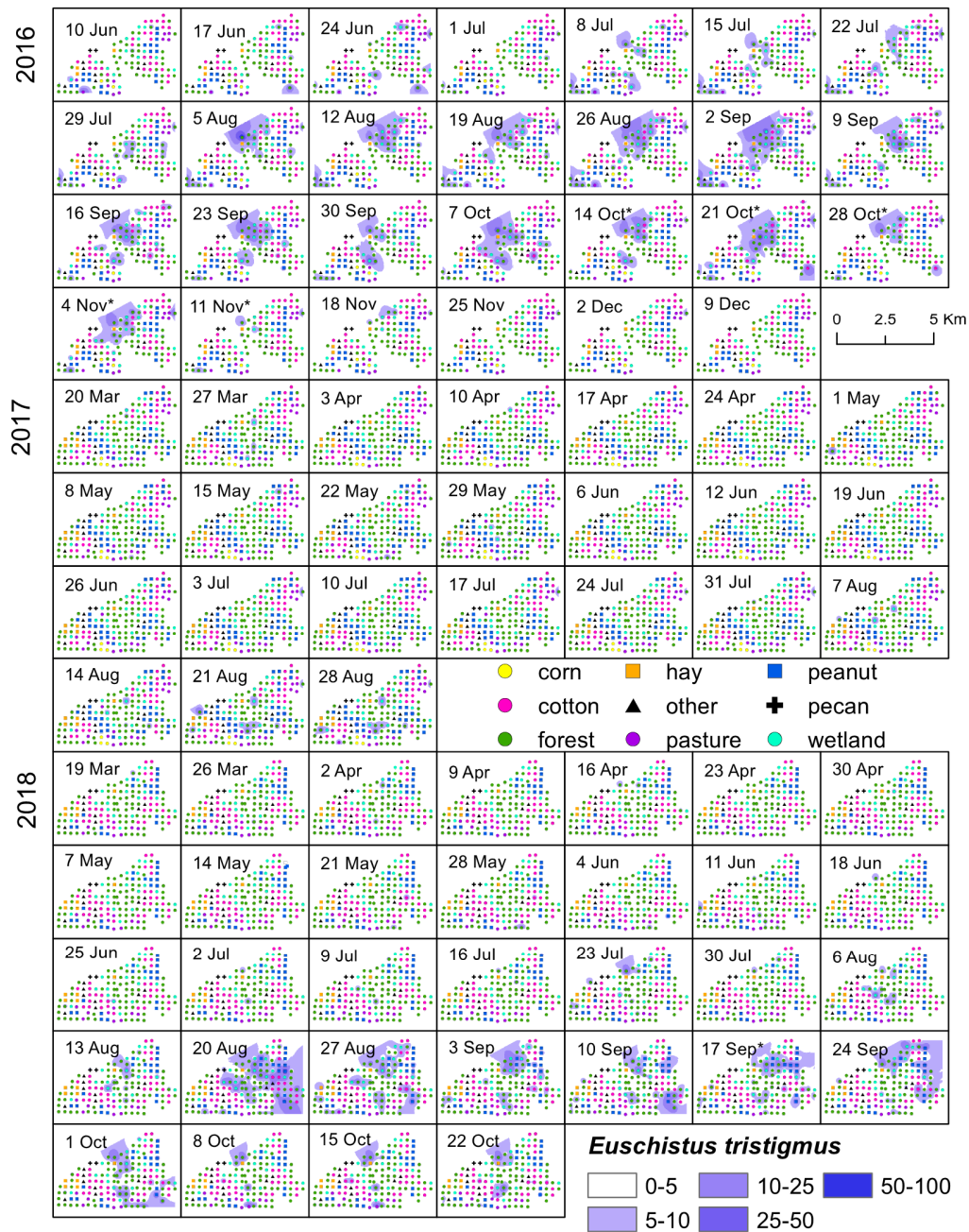
| Date     | <i>E. servus</i> |             | <i>E. tristigmus</i> |             | <i>C. hilaris</i> |             | Available host crop <sup>b</sup> |
|----------|------------------|-------------|----------------------|-------------|-------------------|-------------|----------------------------------|
|          | Adult            | Nymph       | Adult                | Nymph       | Adult             | Nymph       |                                  |
| 3/19/18  | 1.13             | -           | <b>1.48</b>          | -           | -                 | -           |                                  |
| 3/26/18  | 1.26             | -           | 1.36                 | -           | -                 | -           |                                  |
| 4/2/18   | 1.16             | -           | <b>1.43</b>          | -           | -                 | -           |                                  |
| 4/9/18   | 1.27             | -           | 1.02                 | -           | -                 | -           |                                  |
| 4/16/18  | 1.02             | -           | 1.15                 | -           | -                 | -           |                                  |
| 4/23/18  | 0.84             | -           | 1.15                 | -           | -                 | -           |                                  |
| 4/30/18  | 1.09             | 1.28        | <b>1.57</b>          | -           | -                 | -           |                                  |
| 5/7/18   | 0.84             | 0.82        | <b>1.72</b>          | 1.05        | -                 | -           |                                  |
| 5/14/18  | 1.21             | 0.78        | 1.24                 | 1.04        | -                 | -           |                                  |
| 5/21/18  | 1.11             | 0.82        | 1.32                 | 0.96        | -                 | -           |                                  |
| 5/28/18  | <b>1.74</b>      | 0.94        | 1.31                 | 1.26        | -                 | -           |                                  |
| 6/4/18   | 1.16             | 0.75        | <b>1.61</b>          | 1.29        | -                 | -           | CO                               |
| 6/11/18  | 1.20             | 0.93        | 0.90                 | 0.79        | -                 | -           | CO                               |
| 6/18/18  | 1.26             | 1.2         | 1.12                 | <b>1.85</b> | -                 | <b>1.84</b> | CO                               |
| 6/25/18  | 1.33             | 1.28        | 1.07                 | 0.86        | -                 | 1.24        | CO                               |
| 7/2/18   | <b>1.63</b>      | 0.96        | 1.09                 | 1.05        | 0.72              | 1.34        | CO                               |
| 7/9/18   | <b>2.23</b>      | 1.16        | 1.04                 | 0.93        | -                 | 0.88        | CO                               |
| 7/16/18  | <b>2.71</b>      | <b>1.7</b>  | 1.27                 | <b>1.4</b>  | 0.75              | 0.94        | CO                               |
| 7/23/18  | <b>2.03</b>      | 1.1         | 1.14                 | 0.79        | <b>1.62</b>       | 0.87        | CO, PE                           |
| 7/30/18  | 1.40             | 1.01        | 1.09                 | -           | 1.03              | -           | CO, PE, CT                       |
| 8/6/18   | 0.85             | 1.22        | 1.04                 | 0.86        | 0.76              | <b>1.6</b>  | PE, CT                           |
| 8/13/18  | 0.86             | 0.91        | 1.26                 | 1.04        | 0.94              | 1.2         | PE, CT                           |
| 8/20/18  | 1.06             | 1.26        | <b>2.14</b>          | 1.2         | 0.77              | -           | PE, CT                           |
| 8/27/18  | 1.26             | 0.93        | 1.04                 | 0.94        | 1.12              | 1.23        | PE, CT                           |
| 9/3/18   | 1.16             | 1.05        | 1.26                 | 1.05        | <b>1.54</b>       | 1.28        | PE, CT                           |
| 9/10/18  | 1.20             | 1.41        | <b>1.73</b>          | 0.94        | 0.82              | 1.17        | PE, CT                           |
| 9/17/18  | 1.11             | <b>1.66</b> | <b>1.83</b>          | 0.97        | 0.76              | 1.14        | PE                               |
| 9/24/18  | 1.26             | 0.99        | <b>2.13</b>          | <b>1.78</b> | 0.87              | 1.1         | PE                               |
| 10/1/18  | 1.16             | 0.99        | 1.32                 | <b>1.58</b> | 0.87              | 0.95        |                                  |
| 10/8/18  | <b>1.76</b>      | 0.85        | 0.88                 | 0.85        | <b>1.93</b>       | <b>1.64</b> |                                  |
| 10/15/18 | <b>1.58</b>      | 0.82        | 1.01                 | 0.77        | <b>2.03</b>       | <b>1.93</b> |                                  |
| 10/22/18 | <b>1.51</b>      | 1.38        | 0.97                 | 0.93        | 0.93              | 1.29        |                                  |

<sup>a</sup>  $I_a$  values in bold indicate that  $P_a < 0.05$ .

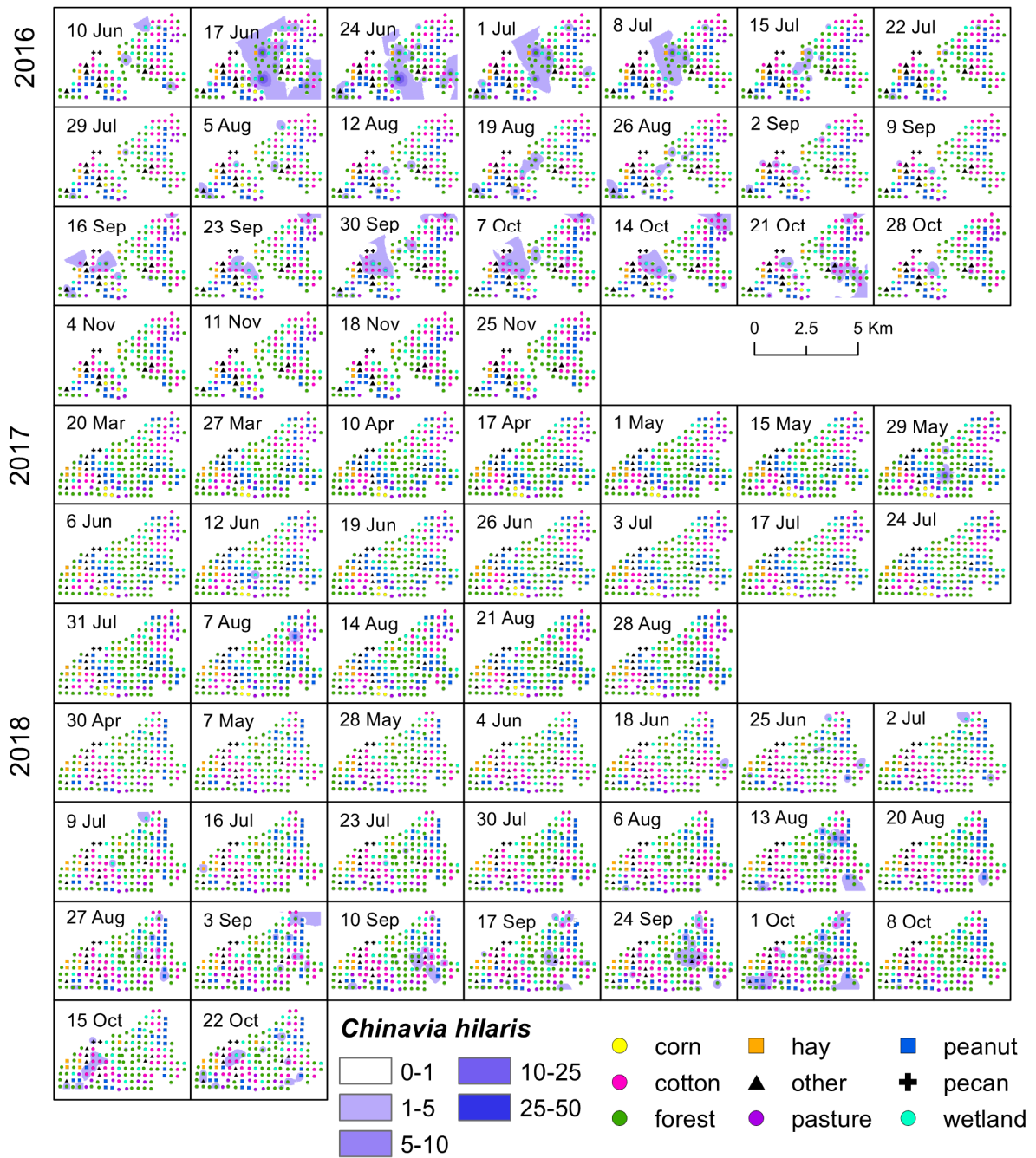
<sup>b</sup> Peanut (PE), cotton (CT), and corn (CO).



**Supplemental Materials Figure S1.** Interpolated maps based on annual trap capture that shows the distribution of the total number of *Euschistus servus* (nymphs and adults) captured from 2016-2018. An asterisk following sample dates indicates that adults in overwintering condition were captured.



**Supplemental Materials Figure S2.** Interpolated maps based on annual trap capture that shows the distribution of the total number of *Euschistus tristigmus* (nymphs and adults) captured from 2016-2018. An asterisk following sample dates indicates that adults in overwintering condition were captured.



**Supplemental Materials Figure S3.** Interpolated maps of *C. hilaris* distributions from 2016-2018.

Sample weeks were omitted from the map if no *C. hilaris* adults or nymphs were captured.