

# What's Growing On?

**BASTROP COUNTY MASTER GARDENER ASSOCIATION**

June 2022

## Kern's Flower Beetles

By Wizzie Brown

Kern's flower beetles are a type of scarab beetle, closely related to May and June beetles. These are medium sized beetles, reaching about 1/3 inch in length. There are multiple color variations ranging from all black, to brownish-orange or creamy white with black markings.

These beetles are pollen feeders and can be found in multiple types of flowers. Often you will find numerous beetles in a single flower. Treatment of these beetles is optional as they feed on pollen and typically do not eat the flower itself. If you feel the need to remove the beetles, you can hand pick them and dump them into a bucket of soapy water.

For more information or help with identification, contact Wizzie Brown, Texas AgriLife Extension Service Program Specialist at 512.854.9600.



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**TEXAS A&M**  
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# Wasps are Your Friends—Here’s How to Attract Them\*

Text and Photos By Howard Nemerov

Did you know that most wasp species are beneficial insects? Caution around them is reasonable: they can sting multiple times, and some should avoid wasps due to medical conditions. Still, many wasp species are pollinators and perform pest control by feeding garden pests to their young.

After adding Celosias to my garden, a number of wasp species appeared in my garden.<sup>1</sup> Prioritize your family’s health when considering a wasp-friendly garden. Texas A&M notes there are a few potentially dangerous wasps:

*Although thousands of North American wasp species can “sting,” few are potentially dangerous to humans. Of the fewer than 40 species of stinging (vespid) wasps that occur in the United States, only a handful are important stinging pests in Texas.*<sup>2</sup>

They also note that attacks usually occur when these wasps feel their nest is threatened, and occasionally if they feel personally threatened. These species are considered **social**, because they build and maintain colonies that can contain thousands of workers ready to defend the nest.

*Vespid wasps are most likely to sting when their nest is disturbed. All social wasps will vigorously defend their nests when disturbed. These wasps rarely sting away from the nest, unless trapped or pressed against the skin.*<sup>3</sup>

Most wasps considered beneficial are “solitary,” building nests alone and feeding various insects to their larvae.

*Another important group of wasps with stingers are the solitary wasps. The stinger of solitary wasps is used primarily for subduing prey. Although solitary wasps may be common and are often thought dangerous by people who fear wasps, solitary wasps rarely sting humans. Most are entirely beneficial, feeding on spiders, crickets, cicadas and caterpillars.*<sup>4</sup>

## Why Wasps are Beneficial

Most wasps in my garden feed caterpillar larvae to their young. While this might include butterfly larvae, many caterpillars are threats to our shade and fruit trees:

- Sawfly larvae consume tree leaves, often skeletonizing them.<sup>5</sup>
- Walnut Caterpillars consume Pecan leaves.<sup>6</sup>
- Eastern Tent Caterpillars defoliate many fruit tree species.<sup>7</sup>
- Fall Webworms consume many shade tree species.<sup>8</sup>

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## Volunteering

Master Gardeners volunteer in the community to teach others about horticulture. We follow the research-based recommendations of Texas A&M AgriLife Extension. Members who complete 50 hours of volunteer service in the year after training earn the designation “Texas Master Gardener.” We use our title only when engaged in Texas A&M AgriLife Extension activities.

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Considering these and other threats to our garden makes wasps worthy garden friends. Provide them nectar and nesting sites, and they'll do the rest.

Here are some of the wasps that visit my garden; most are solitary, pollinating flowers and providing pest control. We co-exist peacefully.

## Four-toothed Mason Wasp



Four-toothed Mason Wasp (*Monobia quadridens*, on left, feeding on *Celosia argentea* var. *plumosa*) feeds caterpillars to their larvae.<sup>9</sup> Adults feed on pollen as well as nectar.

*Each female selects her own nest location (solitary) from a diversity of natural cavities such as abandoned tunnels of carpenter bees or on occasion ground nesting bees; old mud dauber nests; and hollow plant stems.<sup>10</sup>*

Females paralyze caterpillars by stinging them, then flying them back to their nest.

*The female places multiple paralyzed caterpillars into her nesting tunnel. She lays an egg in the tunnel with the cat-*

*erpillars and then seals the tunnel section with a mud partition creating a cell.<sup>11</sup>*

## Great Golden Digger Wasp

Great Golden Digger Wasp (*Sphex ichneumoneus*, on right, feeding on *Celosia argentea* var. *plumosa*) captures grasshoppers, crickets, and Katydid for their young, again stinging prey to paralyze before carrying to the nest. Another solitary wasp, adults live on plant sap and flower nectar. They are not aggressive and only sting if handled. One female can build up to six nests, eliminating a lot of grasshoppers that would otherwise chew on your plants.

Though mulching soil is generally a good way to protect and build soil, you'll need to leave an area of bare soil to attract this wasp.



*Rarely is there vegetation around the nests. Most sites are exposed to the sun in an open locale.<sup>12</sup>*

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## New Website Features

Check out our website, which features project slideshows, a new photo gallery section, and an events calendar to check out upcoming activities. Find news articles and our newsletters. Thanks to Dave Posh for keeping the info timely for us <https://txmg.org/bastropcounty/>



## Northern Paper Wasp



While you don't want to bother their nest, Northern Paper Wasps (*Polistes fuscatus*, on left, feeding on *Celosia spicata*) feed caterpillars, flies, and beetle larvae to their young.<sup>13</sup> While a social wasp species, I haven't experienced attacks; they seem to live and let live. I've removed nests in traffic areas for safety's sake: A mature nest may contain 20 to 30 adults, and each can sting repeatedly when their nest is disturbed. My effective, least-toxic practice is to look for nests regularly and remove while fairly new and small. Spraying a hard jet of Dawn dish soap solution at 1.5–2 tablespoons per gallon kills wasps and softens the nest for easy removal.

One way to differentiate paper wasps from more aggressive yellowjackets is observing nest construction: "Paper wasp nests are open and cells are not covered with a cap."<sup>14</sup> Yellowjackets feed "insects, arthropods, and carrion" to their larvae. They provide pollinator services because they also collect nectar, but don't produce honey.<sup>15</sup>

## Thread-waisted Wasp

Thread-waisted wasps (*Ammophila procera*, on right, feeding on *Celosia argentea* var. *plumosa*) feed sawfly larvae and caterpillars to their young.<sup>16</sup> Along with removing caterpillars which chew on everything from trees to vegetables, Thread-waisted wasps are garden friends, too. An ambush predator, these wasps sting their prey to paralyze them, then carry them back to a nest built in loose soil. Adults feed on nectar and small insects.<sup>17</sup>

These wasps came for Celosia nectar; all are welcome in my garden.

[**Disclaimer:** If you suspect or know you're allergic to wasp stings, consider getting medical advice before growing Celosia species. This article is for educational purposes only and is not medical advice.]



## Endnotes

<sup>1</sup> "*Celosia argentea* var. *plumosa*." North Carolina State Extension. Accessed June 23, 2022. <https://plants.ces.ncsu.edu/plants/celosia-argentea-var-plumosa/>

<sup>2</sup> Glen C. Moore and Mike E. Merchant. "Paper Wasps, Yellowjackets and Solitary Wasps." Texas A&M AgriLife Extension Service. Accessed June 17, 2022. <https://agrilifeextension.tamu.edu/library/insects/paper-wasps-yellowjackets-and-solitary-wasps/>

<sup>3</sup> Glen C. Moore and Mike E. Merchant. "Paper Wasps, Yellowjackets and Solitary Wasps."

<sup>4</sup> Glen C. Moore and Mike E. Merchant. "Paper Wasps, Yellowjackets and Solitary Wasps."

<sup>5</sup> "Sawfly." Texas A&M AgriLife Extension Service. Accessed June 23, 2022. <https://texasinsects.tamu.edu/sawfly/>

<sup>6</sup> Bill Ree and Marty Jungman. "Walnut Caterpillars." Texas A&M AgriLife Extension Service. Accessed June 23, 2022. <https://agrilifeextension.tamu.edu/library/landscaping/walnut-caterpillars/>

<sup>7</sup> "Eastern Tent Caterpillar." Texas A&M AgriLife Extension Service. Accessed June 23, 2022. <https://texasinsects.tamu.edu/eastern-tent-caterpillar/>

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<sup>8</sup> “Fall Webworm.” Texas A&M AgriLife Extension Service. Accessed June 23, 2022. <https://texasinsects.tamu.edu/fall-webworm/>

<sup>9</sup> “Species *Monobia quadridens* - Four-toothed Mason Wasp.” Iowa State Department of Entomology. Accessed June 13, 2022. <https://bugguide.net/node/view/5345>

<sup>10</sup> Paula Shrewsbury. “Beneficial of the Week.” University of Maryland Extension bulletin, page 8. August 14, 2020. Accessed June 17, 2022. <https://extension.umd.edu/sites/extension.umd.edu/files/2021-04/20Aug14L.pdf>

<sup>11</sup> Paula Shrewsbury. “Beneficial of the Week.” University of Maryland Extension bulletin, page 8. August 14, 2020.

<sup>12</sup> Laura Bellmore. “Great Golden Digger Wasp.” Beneficials in the Garden, Texas A&M AgriLife Extension Service. Accessed June 18, 2022. [https://aggie-horticulture.tamu.edu/galveston/beneficials/beneficial-54\\_great\\_golden\\_digger\\_wasp.htm](https://aggie-horticulture.tamu.edu/galveston/beneficials/beneficial-54_great_golden_digger_wasp.htm)

<sup>13</sup> “Species *Polistes fuscatus* - Northern Paper Wasp.” Iowa State Department of Entomology. Accessed June 13, 2022. <https://bugguide.net/node/view/14227>

<sup>14</sup> “Paper Wasp.” Texas A&M AgriLife Extension Service. Accessed June 17, 2022. <https://texasinsects.tamu.edu/paper-wasp/>

<sup>15</sup> “Yellow Jackets.” Texas A&M AgriLife Extension Service. Accessed June 23, 2022. <https://txbeeinspection.tamu.edu/public/bee-identification/yellow-jackets/>

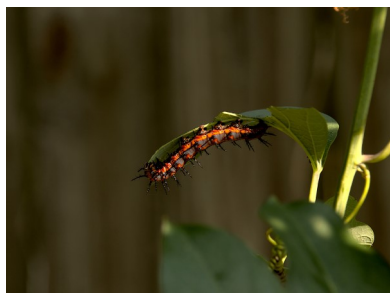
<sup>16</sup> “Species *Ammophila procera*.” Iowa State Department of Entomology. Accessed June 23, 2022. <https://bugguide.net/node/view/11119>

<sup>17</sup> Lee Harrison. “Threat-waisted Wasp.” University of Florida Extension, July 20, 2018. Accessed June 23, 2022. <https://blogs.ifas.ufl.edu/wakullaco/2018/07/20/thread-waisted-wasp/>



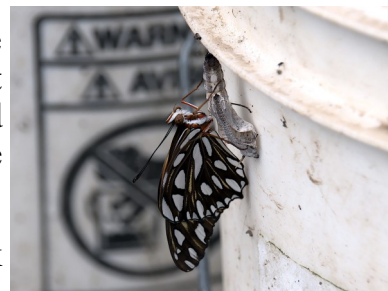
## Gulf Fritillary Butterflies Found My Native Passionflowers

Text and Photos By Howard Nemerov



A few years ago, I found *Passiflora lutea* (Yellow Passionflower) at a fall sale by Lady Bird Johnson Wildflower Center. Here's evidence that new plants crawl-walk-run, needing about three years to establish. This year, Gulf Fritillary butterflies discovered this native host plant.<sup>1</sup> On the left is a caterpillar catching the morning sun while eating breakfast.

I found it curious that mature larvae crawled all the way across my garden to pupate: The vines grow near the back fence, but chrysalises appeared on and around the deck. On the right is a newly-eclosed adult who attached their chrysalis to a 5-gallon rainwater bucket below the deck.



On the left is another chrysalis attached to our deck railing. The last two pictures on the right show larvae in two earlier instars.



<sup>1</sup> “*Passiflora lutea*.” Lady Bird Johnson Wildflower Center. Accessed June 28, 2022. [https://www.wildflower.org/plants/result.php?id\\_plant=PALU2](https://www.wildflower.org/plants/result.php?id_plant=PALU2)

