

# Gulf Fritillary Butterfly, *Agraulis vanillae* (Linnaeus) (Insecta: Lepidoptera: Nymphalidae)<sup>1</sup>

Jaret C. Daniels<sup>2</sup>

## Introduction

The Gulf fritillary, *Agraulis vanillae* (Linnaeus), is a brightly colored butterfly common across extreme southern portions of the United States. At home in most open, sunny habitats, it frequents roadsides, disturbed sites, fields, open woodlands, pastures, yards, and parks. It is a regular in most butterfly gardens, including those in more urban settings.

## Distribution

The Gulf fritillary occurs throughout the southern United States southward through Mexico, Central America and the West Indies to South America. In Florida, it can be found in all 67 counties. The butterfly undergoes distinct seasonal movements each year. Adults move northward in spring and form temporarily breeding colonies throughout the southeast. Individual vagrants may occasionally reach into the central US, but rarely into the Midwest. Starting in late summer and continuing through fall, huge numbers of adults migrate southward into peninsular Florida. Adults overwinter in frost-free portions of their range.

## Description

### Adult

The Gulf fritillary is a medium-sized butterfly with elongated forewings. Adults have a wingspan range of 65 to 95

mm. Females are generally larger than males. The sexes are dimorphic. The upper surface of the wings is bright orange with black markings. Females are somewhat darker and more extensively marked. The forewing cell contains three black-rimmed white spots. The undersides of the wings are brown with elongated silvery-white spots.



Figure 1. Adult Gulf fritillary butterfly, *Agraulis vanillae* Linnaeus.

### Eggs

The yellow eggs are laid singly on or near the hostplant.

### Larva

The mature larva is bright orange with numerous black branched spines.

1. This document is EENY 423, one of a series of the Entomology and Nematology Department, UF/IFAS Extension. Original publication date February 2009. Reviewed January 2016. Visit the EDIS website at <http://edis.ifas.ufl.edu>. This document is also available on the Featured Creatures website at <http://entnemdept.ifas.ufl.edu/creatures/>.

2. Jaret C. Daniels, assistant professor, Entomology and Nematology Department; UF/IFAS Extension, Gainesville, FL 32611.



Figure 2. Eggs of the Gulf fritillary butterfly, *Agraulis vanillae* Linnaeus, on Maypop (purple passionflower), *Passiflora incarnata* L. (Passifloraceae).

Credits: Jaret C. Daniels, University of Florida



Figure 3. Mature larvae of the Gulf fritillary butterfly, *Agraulis vanillae* Linnaeus, on corkystem passionflower, *Passiflora suberosa* L. (Passifloraceae).

Credits: Jaret C. Daniels, University of Florida

## Pupa

The pupa is mottled brown.

## Life Cycle and Hosts

The Gulf fritillary produces multiple generations each year. Adults may be found in all months of the year throughout much of Florida. Adults have a quick, erratic flight but are easily drawn to nearby flowers. Females lay the small yellow eggs singly on or near leaves, stems or tendrils of purple passionflower (*Passiflora incarnata* L.), corkystem passionflower (*Passiflora suberosa* L.), yellow passionflower (*Passiflora lutea* L.) and several other passionflower vines. The larvae are bright orange with numerous black, branched spines. Larvae may feed on all parts of the plant and can rapidly defoliate host vines. The pupa is mottled brown and resembles a dead leaf. Adults overwinter.



Figure 4. Pupa of the Gulf fritillary butterfly, *Agraulis vanillae* Linnaeus, on twig.

Credits: Jaret C. Daniels, University of Florida



Figure 5. Purple passionflower, *Passiflora incarnata* L. (Passifloraceae), a host of the Gulf fritillary butterfly, *Agraulis vanillae* (Linnaeus).

Credits: Jaret C. Daniels, University of Florida

## Selected References

- Cech R, Tudor G. Butterflies of the East Coast: An Observer's Guide. 2005. Princeton University Press, Princeton, NJ. 345 pp.
- Daniels JC. Butterflies of Florida Field Guide. 2003. Adventure Publications, Cambridge, MN. 250 pp.
- Daniels JC. 2000. Butterflies 1: [Butterflies of the Southeast](#). UF/IFAS. Card Set. SP 273.
- Kimball CP. 1965. The Lepidoptera of Florida; an annotated checklist. Arthropods of Florida and Neighboring Land Areas Vol. 1. Florida Department of Agriculture and Consumer Services, Division of Plant Industry. 363 pp.

Medley JC, Fasulo TR. (1998). [Florida Butterfly Tutorials](#).  
UF/IFAS CD-ROM. SW 155.

Minno MC, Butler JF, Hall DW. 2005. Florida Butterfly  
Caterpillars and Their Host Plants. University Press of  
Florida, Gainesville. 341 pp.