Page #1 Field aid

Autographa gamma Silver Y Moth





FIELD SCREENING AID



Forewing:

- •Background color gray, brown, yellowbrown, gray-brown, or black, and marbled
- •With a distinct Y-shaped or gamma-shaped silver marking
- •About 20 mm in length (~3/4 in)

Hindwing:

•Light brown with a wide dark brown band on the outer margin

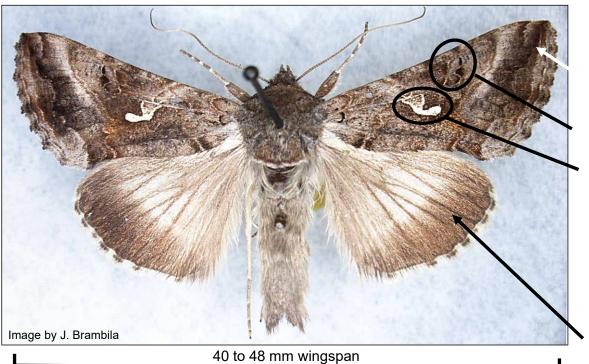
Autographa gamma (L.) is very similar to several North American species in the same subfamily, Plusiinae (Noctuidae), some of which are attracted to the same lure. The wing color of *A. gamma* is not distinctive. Therefore, for final identification, genitalia need to be dissected.

This field aid was produced by Julieta Brambila and Dr. Steve Passoa (USDA/APHIS/PPQ) for CAPS (Cooperative Agriculture Pest Survey program). The photographs of the *Autographa gamma* moth were taken from a specimen loaned to us by Dr. Charles Covell at the McGuire Center for Lepidoptera Research, University of Florida, Gainesville, Florida.

Page #2 Diagnostic aid

Autographa gamma Silver Y Moth

DIAGNOSTIC AID



Forewing:

•Marbled, with background color usually brown, but may be gray, yellow-brown, gray-brown, or black

USDA

•Diffuse black dash from subterminal line to postmedial line

•Reniform spot with a narrow and shiny border

•Stigma silver in color and consisting of a Vshaped mark followed by a curved tail-like extension (overall Y shaped or gamma-letter shaped)

•About 20 mm in length

Hind wing:

•Light brown with a wide dark brown band

Autographa gamma (L.) is very similar to several North American species in the subfamily Plussiinae (Noctuidae). Some of these moths are attracted to the lure used to survey for *Autographa gamma;* four of these species are presented in this diagnostic aid. The wing color of *A. gamma* is not distinctive. Therefore, for final identification, genitalia need to be dissected.

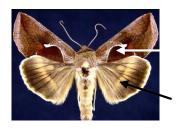
Page #3 Non-targets

Some non-targets attracted to the A. gamma lure









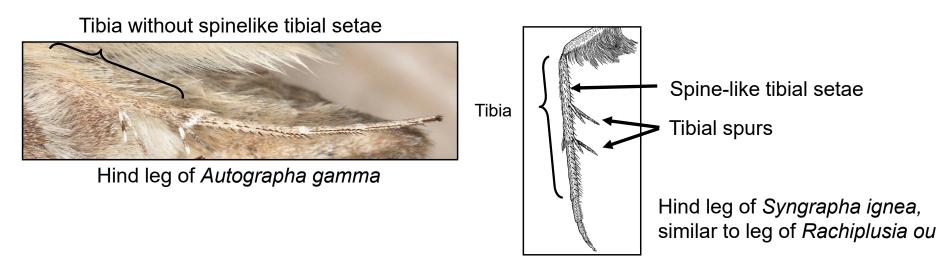
Rachiplusia ou (the "gray looper moth"), a species from southern and central United States, is very similar in general to *A. gamma*. The forewing background color is gray, instead of brown. *Rachiplusia ou* can be separated from *A. gamma* as well as from *A. californica* and all other plusiines in North America, except *Syngrapha ignea,* by the presence of tibial spine-like setae (not the same as tibial spurs, see illustration on next page) on all 3 pairs of legs. Genitalia differences are obvious (see illustrations in Passoa 2006 or the Identification Aid).

Autographa californica (the "alfalfa looper"), a species from western North America, is the closest relative to *A. gamma* and is superficially similar to it. It differs by having the forewing background color dark grey instead of brown, a silver fish-hook shaped stigma, and a thin black streak running from the subterminal line to the postmedial line. This line is present in *A. gamma* but is weakly defined and diffuse. Genitalia dissection is the key to the confirmation of *A. californica* (see Passoa 2006 or the Identification Aid).

Autographa ampla (the "large looper moth") is a widely distributed species in the northern and western areas of North America and is caught sometimes in traps. Adults are distinguished from all other North American *Autographa* by the forewing light or medium grey with a contrasting dark area below a thin white or silver V-shaped stigma. The dark area is part black or dark brown and part redbrown. Another distinguishing mark is a black spot or patch near the apex of the forewing.

Anagrapha falcifera (the "celery looper moth") is a common species in North America that may also be found in the traps. Adults can be distinguished without dissection by their distinctive color pattern. The forewing ground color may be brown, or gray with brown, with the distinguishing mark the silvery stigma in the form of an unbroken and long comma. The hind wing has a distinct light band.

Page #3 Credits



This diagnostic aid was based on Passoa 2006 and was produced by J. Brambila and Dr. Steve Passoa (USDA/APHIS/PPQ) for CAPS (Cooperative Agriculture Pest Survey program). It was reviewed by Joel Floyd (USDA/APHIS/PPQ). The photos of *Autographa gamma* (whole specimen and leg) were taken from a specimen loaned to us by Dr. Charles Covell at the McGuire Center for Lepidoptera Research, University of Florida, Gainesville, Florida. The illustration of the hind tibia of *Syngrapha ignea* is modified from *The Moths of America North of Mexico* and used with permission from Dr. Ronald W. Hodges, Managing Director, Wedge Entomological Research Foundation. The photos of the other four noctuid moths are courtesy of Jim Vargo and his images are found at the following address:

http://mothphotographersgroup.msstate.edu/Files/JV/JVIndex.shtml.

SOURCES:

COVELL, C.V., Jr. 2005. A field guide to moths of Eastern North America. Virginia Museum of Natural History, Special Publication Number 12. 496 pages.

LAFONTAINE, J.D. and R.W. POOLE. 1991. The Moths of America North of Mexico, fasc. 25.1, Noctuoidea, Noctuidae (part). National Museum of Natural History. 182 pages.

PASSOA, S. 2006. Simplified screening aid for *Autographa gamma* in APHIS sticky traps. Identifier's Notes of Interest Newsletter. USDA/APHIS/PPQ. 4 pages.