

Cotinis mutabilis (Gory & Percheron, 1883)

Taxonomy

Sub family: Cetoniinae / Tribe: Gymnetini / Genus: *Cotinis*

Distinguishing Features

Large dorsoventrally flattened beetles, body length: 17-34mm, 10-19mm wide. Dorsal body matte/velvet, colouration ranging from green to occasionally black or plum. Elytral margins of mid disc sometimes tan/yellowing. Body metallic green ventrally, or rarely black or brownish. Elytra and Pronotum appearing smooth, nearly completely lacking punctations. Pronotum projecting basomedially over the scutellum, nearly completely concealing it from view. Clypeus with apex emarginate/subquadrate, and bearing a frontal denticle (clypeal horn). Frons developed into a forward projecting longitudinal process. Mesepimeron visible from above. Posthumeral emargination of the elytra distinct. Forwardly projecting mesometasternal process present.

Related and Similar Species

The genus *Cotinis* contains 29 species across 3 Subgenera. The typical subgenus *Cotinis* contains most of the species.

Cotinis is the only member of Gemnetini tribe that contains a frontal clypeal horn. All species of *Cotinis* also lack dorsal scales, that can be present in other tribal members.

Considerable variation in morphological features have been recognised in *Cotinis mutabilis* and *Cotinis nitida*. The two species can be separated from each other by differences in body length (*C. nitida*: 15-27mm, *C. mutabilis*: 17-34mm), pygidium colouration (*C. nitida*: bicoloured with an apical testaceous area, *C. mutabilis*: unicolorous), and metafemur colouration (*C. nitida*: pale, *C. mutabilis*: same colour as tibia).

Biological Data

Commonly called the Figeater Beetle or Green fruit beetle, *Cotinis mutabilis* is an occasional pest of soft fruit including figs, plums, peaches, and apricots. Damage to tomatoes, pineapple and grapes has also been previously recorded. Adult beetles feed on the soft fruit flesh. While pre-damaged flesh is the most susceptible as they are unable to penetrate the skin with their mouthparts, they can utilize their clypeal horn and spined legs to damage the fruit surface, opening up feeding sites. Larvae are similar to other Cetoniinae, in that they are soil dwelling detritus feeders, living in decomposing organic matter.

Distribution

Cotinis mutabilis is absent from Australia. It is known from across the lower states in the USA including California, Arizona, New Mexico Nevada, Utah, Colorado and Texas. It is distributed further south through Mexico, Central America and into northern South America. Its range throughout the US is thought to have increased over the last century, including quarantine interceptions in Hawaii.

Useful Links

UC IPM: <http://ipm.ucanr.edu/PMG/GARDEN/FRUIT/PESTS/grfruitbeetle.html>

PaDIL image set: <http://www.padil.gov.au/maf-border/pest/main/140405>

Hawaiian Scarab ID page: <http://idtools.org/id/beetles/scarab/factsheet.php?name=15184>

References

Goddrich, M.A. 1966. A revision of the Genus *Cotinis* (Coleoptera: Scarabaeidae). Annals of the Entomological Society of America, 59(3): 550-568

Woodruff, R.E. 2008. The Genus *Cotinis* Burmeister in the eastern United States, with description of a new species from the Florida Keys, including a checklist of the genus (Coleoptera: Scarabaeidae: Cetoniinae) Insecta Mundi 0051: 1-13



Cotinis mutabilis dorsal view

Photographer:

Pia Scanlon



Cotinis mutabilis lateral view

Photographer:

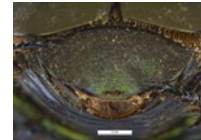
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Cotinis mutabilis ventral view

Photographer:

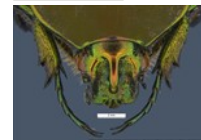
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Cotinis mutabilis posterior view

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Cotinis mutabilis head front view

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Cotinis mutabilis head side view

Photographer:

Pia Scanlon

Krell, F.T., Knight, J.B., Hammon, R., Wheeler, P., Jeffrey, J.R., Eckberg, J. (2015). Northern Range Extension of the Fig-eater Beetle, *Cotinis mutabilis* (Scarabaeidae: Cetoniinae), Into Nevada, Utah, and Colorado. *Western North American Naturalist*. 75. 8-13. 10.3398/064.075.0103.

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