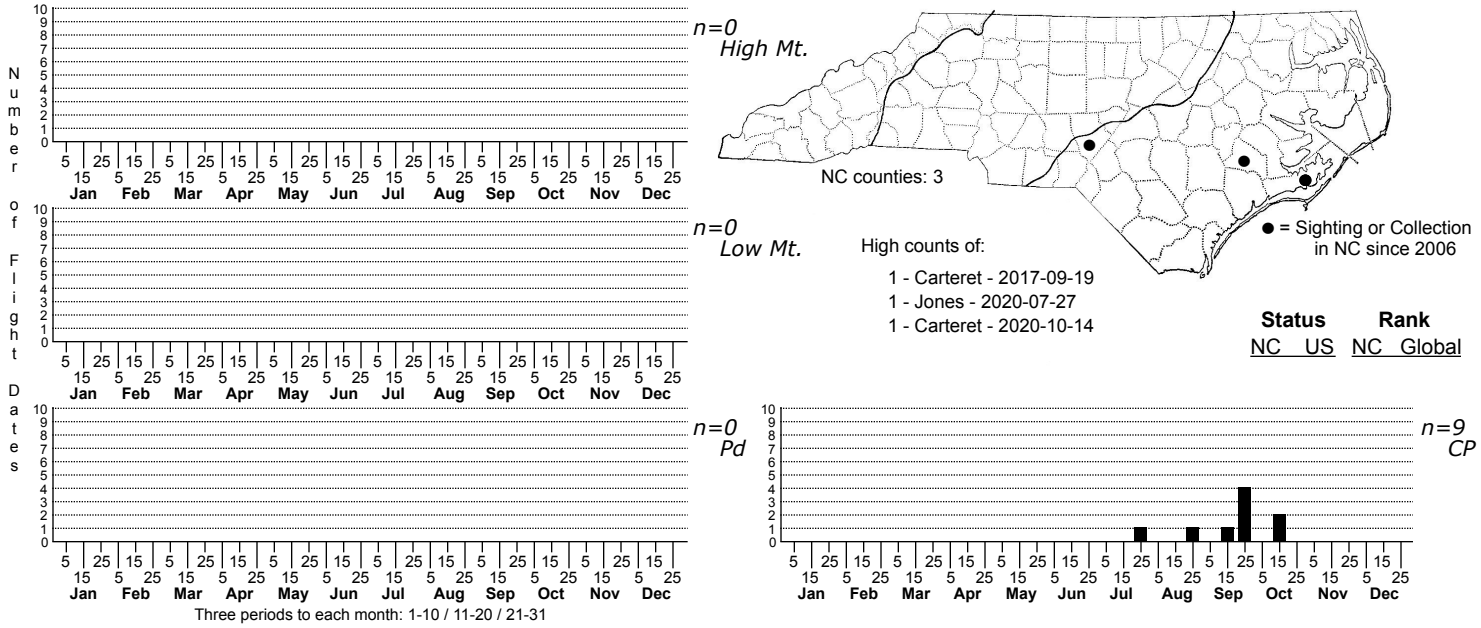
Carposina ottawana Peach Fruit Moth



FAMILY: Carposinidae SUBFAMILY: TRIBE:
TAXONOMIC_COMMENTS:

FIELD GUIDE DESCRIPTIONS:
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: Davis (1969)
TECHNICAL DESCRIPTION, IMMATURE STAGES: Young and Robertson (2020)

ID COMMENTS: Carposina ottawana and C. fernaldana are two closely related species that exhibit substantial variation in their external patterning and coloration. Davis (1969) noted that these species cannot be confidently identified using external maculation, and that specimens should be dissected for accurate identification. Although we do not have any records for C. fernaldana based on dissections as of 2025, it may very well occur in the state. The following is a general description that applies to both species.

The head is grayish white and the antenna uniformly light gray. The labial palp of the male has a scale tuft on the second segment that strongly projects forward, with the lateral and ventral surfaces fuscous, and the dorsal and inner surfaces lighter in color and pale gray. The second segment of the female is much shorter and usually has dorsolateral scales that are paler than the ventral ones. The apex of the third segment is whitish in both sexes.

The basal two-thirds of the forewing has a series of raised scale patches and ridges that gives it a bumpy appearance, but some or all may be missing in worn specimens. The ground color of the forewing is grayish, and in fresh specimens is usually heavily marked with fuscous dusting and larger dark marks. Specimens often have the costa marked with heavy blackish dusting that is narrow along the basal half, then wider at around two-thirds. In some specimens it may extend inward towards the apex of the cell where there is often one or two short, longitudinal streaks. A dark, transverse band is usually evident at the wing base of fresh specimens, but is often interrupted or missing in worn specimens. Finally, a line of dark fuscous dusting or dark spots is often evident on the outer margin, while the apical half of the costa often has the darker dusting organized as several dark spots. Many of the dark marks described above are subject to wear, so expect substantial deviations from the description above.

DISTRIBUTION: The distribution of this species is rather poorly documented because of the need to examine genitalia for accurate identification. MPG shows the range in the US extending from Maine southward to South Carolina and northern Florida, and westward to central Texas, eastern Oklahoma, eastern Missouri and Illinois. Isolated records are also known for New Mexico, Colorado and Nebraska. In Canada, Pohl et al. (2018) have records for Alberta, Saskatchewan, Manitoba, Ontario, Quebec and Nova Scotia. As of 2025, all of our records are from the Coastal Plain. However, we have other records from the Piedmont and Blue Ridge for unidentified Carposina specimens that likely include this species (see 'Carposina unidentified').

FLIGHT COMMENT: Specimens have been observed from March through November in different areas of the range, with most between June and September. As of 2025, our records extend from late-July through mid-October.

HABITAT: Our records come from xeric, sandy habitats, including several from barrier island dunes and one from a site supporting xeric sandhill scrub.

FOOD: Host use by this species has been a source of confusion due to taxonomic issues concerning whether C. ottawana is conspecific with one of two closely related southeast Asian species (C. niponensis; C. sasakii). The latter feeds on pome and stone fruits and is a major pest on apples, peaches and pears in Japan and surrounding regions. Carposina ottawana has been reported to feed on these also (Covell, 1984; Robinson et al., 2010), but Davis (1969) noted that this species is not a pest in fruit orchards in the US, and that the only known rearing records are for the fruits of Gray Dogwood (Swida racemosa and for a gooseberry [Ribes sp.]. We do not have any feeding records in North Carolina as of 2025.

OBSERVATION_METHODS: The adults are attracted to lights.

NATURAL HERITAGE PROGRAM RANKS: [GNR] SNR [S1S2]

STATE PROTECTION:

COMMENTS: We have only three site records as of 2025, but the scarcity of records may reflect in part the need to identify specimens based on genitalia.