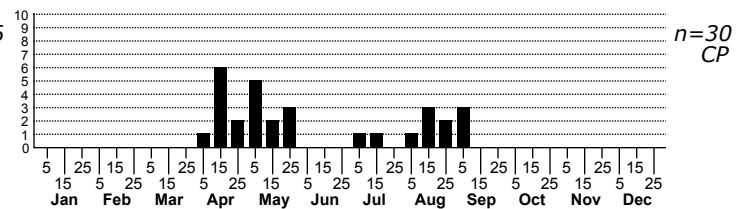
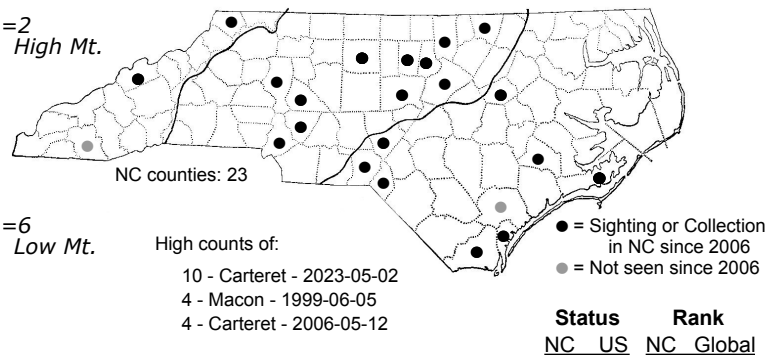
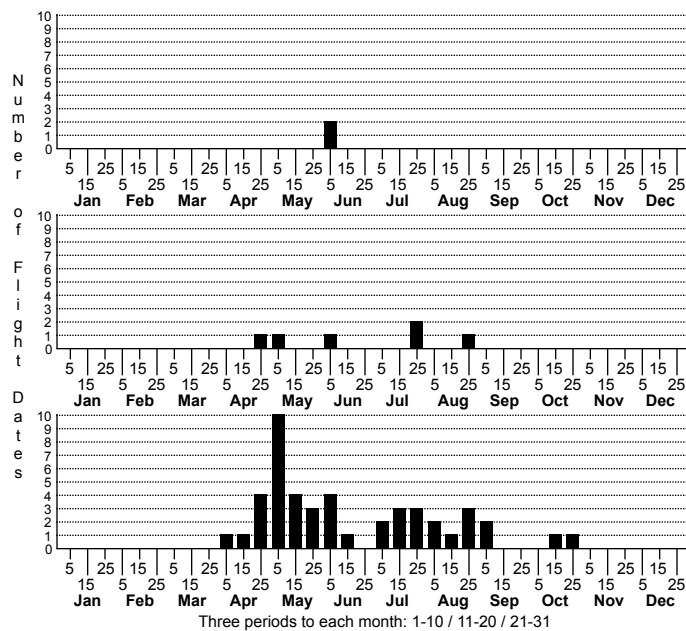


Desmia maculalis Grape Leafroller Moth



FAMILY: Crambidae SUBFAMILY: Pyraustinae TRIBE: Spilomelini
TAXONOMIC_COMMENTS:

FIELD GUIDE DESCRIPTIONS: Covell (1984); Beadle and Leckie (2012)
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS:
TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: *Desmia funeralis* and *D. maculalis* have very similar dorsal patterns and are most reliably identified based on the patterning on the ventral surface of the abdomen. Brian Scholtens notes that *D. funeralis* either has a solid white patch on the underside of the abdomen on segments 1-5, or a solid white mark with a slight break on segment 3. In contrast, *D. maculalis* has a broken white patch, where about one-half of segments 3 and 4 are clearly dark. Basically, *D. maculalis* looks striped on the underside, whereas *D. funeralis* looks like it is solid white or white with a single dark band (see MPG).

In North Carolina specimens, the outer of the two white spots on the forewing in *D. funeralis* is sometimes noticeably larger than the inner spot (but often not!), while in *D. maculalis* they are usually either equal or the outer one is very slightly larger (JBS, pers. obs). Additionally, the hindwing median white band or pair of spots can be used for identification in some instances. In *D. funeralis* there is usually a single large band that reflects the complete fusion of two smaller spots, and the band may have a hint of an indentation in the middle. In *D. maculalis*, males and females exhibit different hindwing patterns. The male band closely resembles that of *D. funeralis*, while the female band consists of either two separate small spots, or two small spots that are partially fused with a pronounced indentation near the middle.

Because of the difficulty of reliably identifying specimens based on dorsal patterning, we strongly recommend that both a dorsal image of the moth and a ventral image of the abdomen be submitted together.

DISTRIBUTION: *Desmia maculalis* occurs in Canada from British Columbia to Nova Scotia, and in every state in the eastern U.S. from North Dakota southward to Texas and eastward to the Atlantic coast. In the West, it occurs in New Mexico, Arizona, Colorado, California, Oregon and Washington. This species is found statewide in North Carolina.

FLIGHT COMMENT: The adults have been observed from February through December in different areas of the range, with peak activity from April through September. As of 2023, our records range from mid-April through late-October, with local population having two generations per year.

HABITAT: Local populations are commonly found in habitats that support native grapes and Virginia Creeper. Examples include pine, hardwood, or mixed pine-hardwood forests, particularly where forest gaps, forest roads, wildlife openings, and stream banks provide good conditions for the growth of the host species.

FOOD: The larval hosts appear to be very similar to those of *Desmia funeralis*, with both domesticated and native grapes (*Vitis* spp.) and Virginia Creeper (*Parthenocissus quinquefolia*) being the primary hosts. The larvae also feed on members of other genera in the Vitaceae that are exotics. Tracy Feldman successfully reared an adult in North Carolina from Virginia Creeper, while Jeff Niznik reared one from Peppervine (*Nekemias arborea*), and Ken Kneidel one from Porcelain-berry (*Ampelopsis glandulosa*). George Smiley (BugGuide) also reared an adult from Bushy Seedbox (*Ludwigia alternifolia*) in Texas.

OBSERVATION_METHODS: The adults are attracted to lights; more information is needed on host use in North Carolina.

NATURAL HERITAGE PROGRAM RANKS: GNR S3S4

STATE PROTECTION: Has no legal protection, although permits are required to collect it on state parks and other public lands.

COMMENTS: