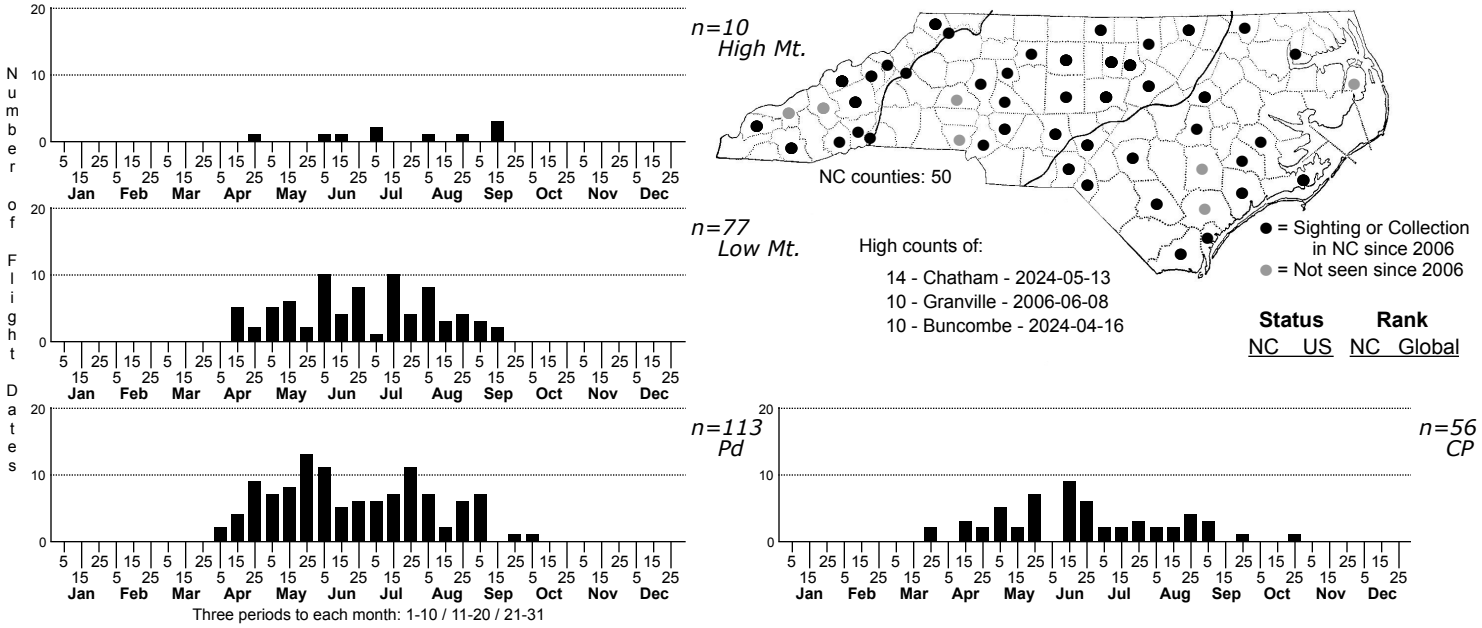
Desmia funeralis Grape Leaffolder Moth



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: Liburd et al. (2022)

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 indention 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 funeralis occurs in Canada from British Columbia to Prince Edward Island, 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, and California. This species is found statewide in North Carolina.

FLIGHT COMMENT: The adults fly year-round in Florida, and mostly from February through October elsewhere. As of 2023, our records range from late-March through early-October. North Carolina populations appear to have two generations, and perhaps a partial third.

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 larvae primarily feed on both native and domesticated grapes, including several Vitis species and Muscadine (Muscadinia rotundifolia). They also commonly use Virginia Creeper (Parthenocissus quinquefolia), and on rare occasions have been reported to use Eastern Redbud (Cercis canadensis) and members of the Onagraceae (Gaura; Ludwigia; Oenothera); Forbes, 1923; Putman, 1942; Craighead et al., 1950; Schaffner, 1959; Baker, 1972; Godfrey et al., 1987; Scholtens (1996); Liburd and Mead, 2001; Covell, 1984; Heppner, 2007; Robinson et al., 2008; Beadle and Leckie, 2012). Tracy Feldman found the larvae feeding on Bushy Seedbox (Ludwigia alternifolia) in North Carolina (BugGuide), and Ken Kneidel reared an adult from a leaf fold on Porcelain Berry (Ampelopsis glandulosa). We also have a feeding record for Virginia Creeper.

OBSERVATION_METHODS: The adults are attracted to lights and the folded leaves are often present on grapes and other hosts.

NATURAL HERITAGE PROGRAM RANKS: G5 S5

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

COMMENTS: