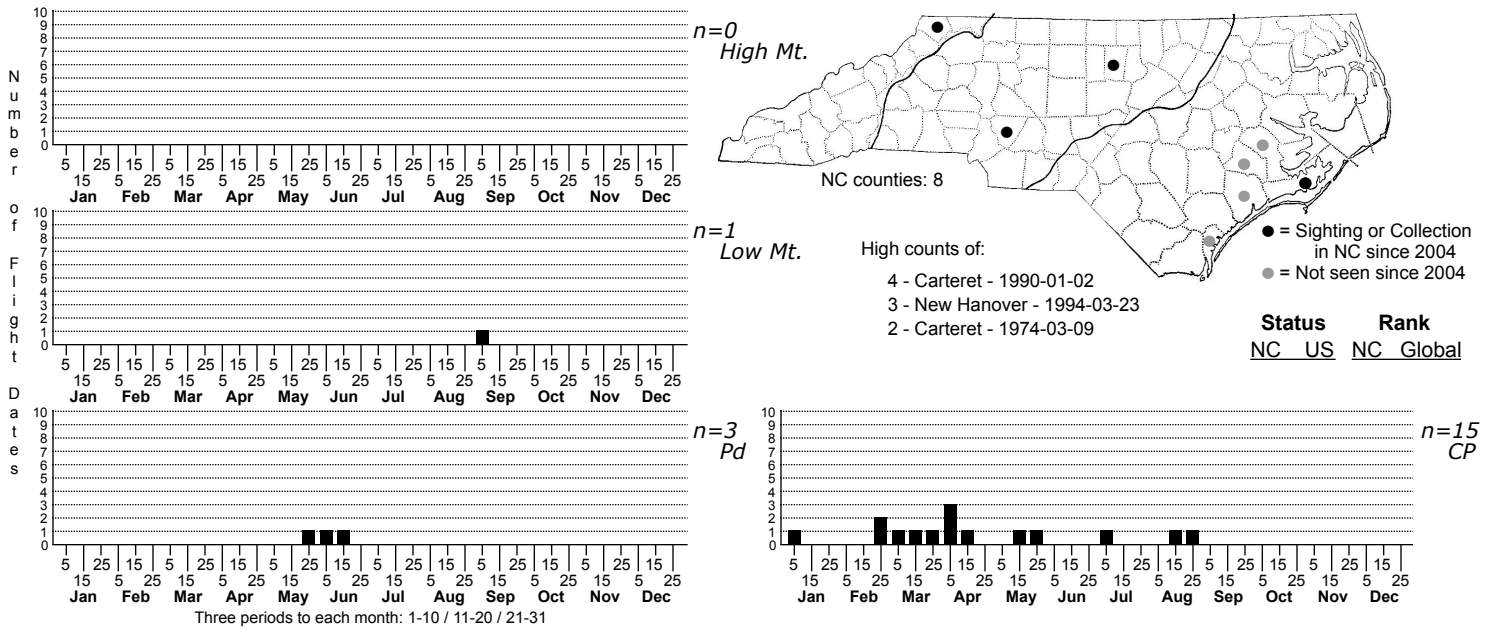


Donacula sordidellus Sordid Donacula



FAMILY: Crambidae SUBFAMILY: Schoenobiinae TRIBE: [Schoenobiini]

TAXONOMIC_COMMENTS: Members of the genus *Donacaulis* are found worldwide, but reach their greatest diversity in the Nearctic region. The group has proven to be taxonomically challenging due to the fact that most of the species are sexually dimorphic, are very similar externally, and exhibit substantial variation within species. Genitalia have proven to be the most useful diagnostic characters for delineating species, but almost all of the species were originally described based on external coloration and patterning. Descriptions and illustrations of genitalia were also lacking for most species until Martinez (2010) undertook a major revision of the Nearctic species. Her work revealed that there were at least 10 undescribed species in addition to the 11 described species in the New World. Additional studies of DNA barcoding and genitalia, including for North Carolina material, indicate that additional undescribed species remain to be formally described. "Some of these are probably identifiable, but, even with the Martinez thesis, there is a great deal of variation, and especially sexual dimorphism that makes these difficult" (Scholtens, 2017).

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Martinez (2010)

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: The following description is based on that of Martinez (2010). The frons, labial palps, antennae and thorax are all light brown. The forewing is also light brown and irrorated with small dark spots. There is a small spot at the apex of the discal cell and a row of terminal spots. Martinez (2010) noted that the patterning is highly variable and may consist of one or more of the following, 1) an oblique line of spots extending from the apex to the outer two-thirds of the inner margin, 2) a zigzag line of off-set spots below the discal cell, 3) a series of three spots on the R vein bordering the discal cell, with one near the base, a second at the middle, and a third at the apex of the discal cell, and 4) a spot at the outer two-thirds of 1A+2A, and 5) terminal spots on the veins. Females are similar to the males except for being pale yellow and having a dark brown shade above the discal cell. The hindwing of the males is yellowish white at the base, but turns light brown or yellowish gray towards the outer margin. Terminal spots are present on the apical half of the wing margin. Females are similar to the males, but are not light brown or yellowish gray towards the margin. The abdomen is light brown in males and yellowish white in females, and the female anal tuft has yellowish white and light brown scales intermixed.

DISTRIBUTION: Martinez (2010) identified specimens from New York, North Carolina, South Carolina, Florida, Mississippi, Louisiana, Texas, Nebraska, and North Dakota. As of 2023, most of our records are from the Coastal Plain, with a few scattered records from the Piedmont and Blue Ridge.

FLIGHT COMMENT: The adults have been observed from January through September in different areas of the range, with the exception of one December record (Martinez, 2010). Peak activity typically occurs in the spring months in southern locales. As of 2023, our records extend from early January through early September.

HABITAT: Our records are from a variety of habitats, including a bottomland hardwood site in the Blue Ridge, and several wetland sites in the Coastal Plain.

FOOD: Newton (1984) reported that this species is a borer on Saltmarsh Cordgrass (*Spartina alterniflora*) and feeds on the tillers and incipient culms prior to elongation. As far as is known, the larvae of other *Donacaula* species are stem borers of Poaceae and Cyperaceae that grow in wetlands (Martinez, 2010). This suggests that *D. sordidellus* might use grasses or sedges as hosts in addition to Saltmarsh Cordgrass.

OBSERVATION_METHODS: The adults are attracted to lights.

NATURAL HERITAGE PROGRAM RANKS: GNR [S2-S4]

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

COMMENTS: This species appears to be uncommon within the state, but additional information is needed on its distribution, abundance, preferred habitats and host plants before we can accurately assess its conservation status in North Carolina.