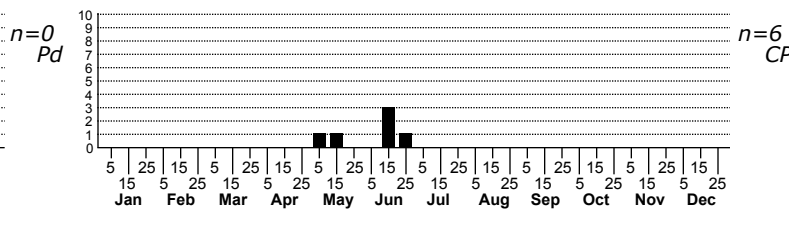
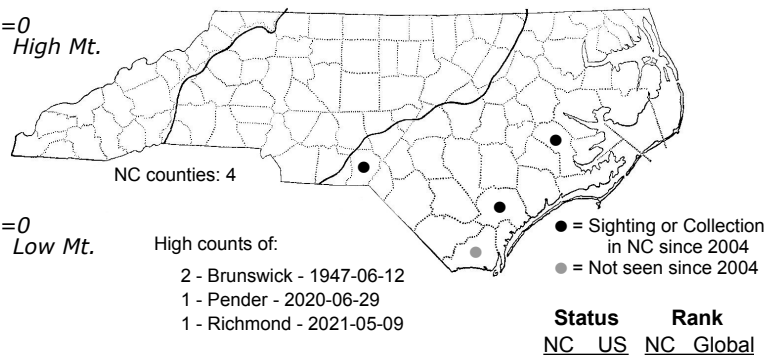


*Donacula unipunctellus* No common name



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). "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 is irrorated with small dark spots. There is a large black spot in the distal area of the discal cell at about two-thirds the length of the wing, and a line of terminal spots on the veins along the outer margin. The hindwing is yellowish-white, with the males having yellowish-gray coloration toward the outer margin. The abdomen is yellowish-white, and the females have a yellowish-white anal tuft.

DISTRIBUTION: Martinez (2010) identified specimens from Nova Scotia, Maine, New Jersey, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Texas, and Utah. As of 2023, all of our records are from the Coastal Plain, including the Sandhills and coastal forests.

FLIGHT COMMENT: The adults fly year-round in Florida, and mostly from March through September in other areas of the range (Martinez, 2010). As of 2023, our records range from early May through late-June.

HABITAT: Our limited records are mostly from sites near coastal wetlands.

FOOD: The hosts are undocumented. Where known, the larvae of *Donacaulis* species are stem borers of Poaceae and Cyperaceae that grow in wetlands (Martinez, 2010). This suggests that *D. unipunctellus* uses wetland grasses or sedges as hosts.

OBSERVATION\_METHODS: The adults are attracted to lights.

NATURAL HERITAGE PROGRAM RANKS: GNR [S2-S3]

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.