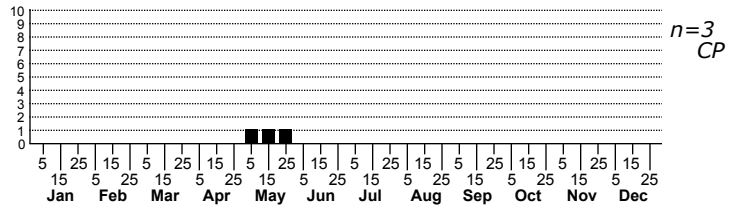
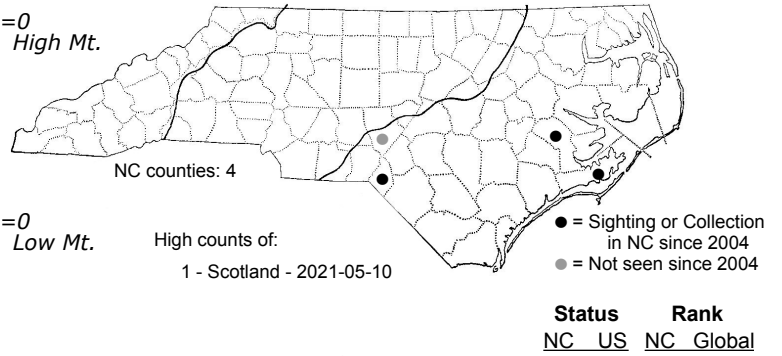


Donacula dispersellus No common name



FAMILY: Crambidae SUBFAMILY: Schoenobiinae TRIBE:

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 is based on the description by Martinez (2010). In the males, the frons, antennae, labial palps and thorax are pale-yellow, while the forewing ground color is yellowish-white and irrorated with brown. The costal margin is tinged with brown scales from the base to all the way to the apex in some specimens, but often fades out before then. There is a brown spot at the apex of the discal cell, and a brown oblique line that runs from the apex towards the outer two-thirds of the inner margin, but fades out before reaching it near the middle of the wing. A line of terminal spots is present along the outer margin.

The female forewing varies from yellow to yellowish-white, and the area between the costa and the discal cell has a prominent longitudinal brown streak from the base to the apex that is often intermixed with yellow or yellowish white scales. There is a brown, oblique line that extends from the apex towards the outer two-thirds of the inner margin that fades near the middle of the wing. A brown spot is present on the apex of the discal cell, and small terminal spots are present along the outer margin between the veins. The hindwing of both sexes is yellowish-white to white, with some specimens slightly irrorated with brown scales. The abdomen has a mixture of yellow and yellowish-white scales, and the anal tuft of the female is yellowish-white. Martinez (2010) noted that most females differ from males in having a longitudinal band below the costa and more intense yellow color, although some females are similar to males in lacking the longitudinal band and having a yellowish-gray color.

DISTRIBUTION: *Donacula dispersellus* is widely distributed across southern Canada (Alberta eastward to Nova Scotia and Prince Edward Island) and in the eastern and central U.S. where it occurs from Maine and Vermont southward to Florida, and westward to Texas, Oklahoma, Kansas, Nebraska, and Illinois. Isolates are also found in Arizona and Colorado (Martinez, 2010; Pohl et al., 2018). As of 2023, all of our records are from the Coastal Plain, including the Sandhills and coastal communities farther east.

FLIGHT COMMENT: The adults mostly fly from June through August in northern and central populations, with a longer flight period in the southern part of the range (April through November; Martinez, 2010). As of 2023, our three dated records are all from the month of May.

HABITAT: Our few records are mostly from mesic habitats with seeps or larger wetlands.

FOOD: The larval hosts are undocumented. Based on several life history studies to date, the larvae of *Donacaula* species have consistently been found to be stem borers of Poaceae and Cyperaceae that grow in wetlands (Martinez, 2010). This strongly suggests that *D. melinellus* uses wetland grasses or sedges as hosts.

OBSERVATION_METHODS: The adults are attracted to lights.

NATURAL HERITAGE PROGRAM RANKS: GNR [S2-S3]

STATE PROTECTION:

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.