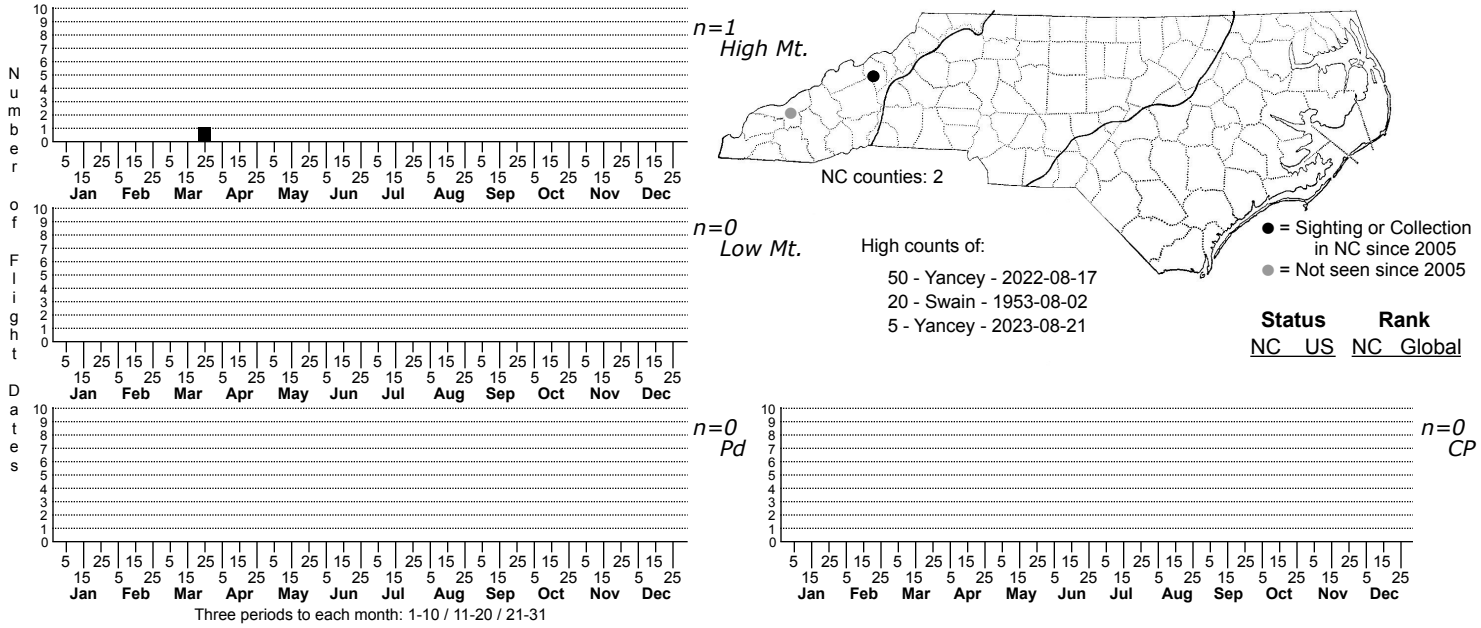
Bucculatrix sexnotata None



FAMILY: Bucculatricidae SUBFAMILY: [Bucculatriginae] TRIBE: [Bucculatrigini]
TAXONOMIC_COMMENTS: Bucculatrix is a large genus of small leaf-mining moths, with around 300 species worldwide. A total of 103 Nearctic species have been described, and many others will likely be described in the future. Braun (1963) covered 99 species in her monograph, and four additional Nearctic species have been described since then.

FIELD GUIDE DESCRIPTIONS:
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: Braun (1963, p. 99)
TECHNICAL DESCRIPTION, IMMATURE STAGES: Braun (1963)

ID COMMENTS: This is a tiny, dark brown to blackish moth with oblique, silvery streaks. The head has an orange-red to dark brown tuft. The following description is from Braun (1963). The face is shining yellowish white. The tuft is orange-red in front, and shades to dark brown behind. The eye-cap is small and silvery white. The antenna stalk is fuscous in the basal half with faintly paler annulations. It becomes paler in the outer half, where it either shades to white, or has a whitish tip (especially in the females). The thorax and forewing ground color are dark and almost black. The forewing has five short, silvery white streaks that terminate before reaching the midline of the wing. The costa has three posteriorly oblique streaks, including one that extends from the base of the costa to the fold, a second that begins just before the middle, and the last at three-fourths. Along the inner margin, there is a posteriorly oblique streak that begins at one-third, and a somewhat rectangular streak before the tornus. Each of these is a little anterior to the corresponding costal streak. In addition to these, there is a white spot at the apex that is followed by a patch of blackish scales that project into the cilia. From this, there is a faint line of dark scales through the cilia along the termen. The hindwing and cilia are brown. The legs are dark brown, and the posterior tibia has long dull ocherous hairs. The abdomen is dark brown above.

DISTRIBUTION: Bucculatrix sexnotata is found in the eastern US and in southern Canada, where is occurs in Alberta, and from Ontario eastward to New Brunswick and Newfoundland. The range in the US extends from the northeastern states (Vermont; Massachusetts; New York) southward and westward to Ohio, Kentucky, Pennsylvania, and North Carolina. As of 2023, our two records come from high elevation sites in the Great Smoky Mountains and at Mt. Mitchell. Annette Braun discovered this species in the Smoky Mountains in 1953, and it has not been reported since then in North Carolina until its recent discovery at Mt. Mitchell.

FLIGHT COMMENT: The adults are commonly on the wing in July. Adults reared from larvae that were collected in August in North Carolina emerged in April the following year (Braun, 1963). Jim Petranka found larvae and molting cocoons in abundance in mid-August at Mt. Mitchell. Two adults emerged in late-March after overwintering in a refrigerator.

HABITAT: Leaf mines of this species were abundant along a high ridge in the Great Smoky Mountains between 5,000 and 6,000 feet where they fed solely on E. divaricata (Braun, 1963). They have also been found near the summit of Mt. Mitchell on Eurybia chorolepis. These host species is fairly common in the state and occupies a range of dry to moist forests and forest edges.

FOOD: The larvae feed on several species of asters (Eurybia and Symphyotrichum). The documented hosts include White Wood-aster (E. divaricata), Heartleaf Aster (S. cordifolium), New York Aster (S. novi-belgii), and Crooked-stem Aster (S. prenanthoides). In North Carolina, we have leaf mine records for White Wood-aster as well as the closely related Mountain Wood-aster (E. chlorolepis).

OBSERVATION_METHODS: The adults rarely visit lights, and many records are based on leaf mines or adults that were reared from mines. We recommend searching the leaves of E. divaricata or other fall asters during the late-summer or early fall months.

NATURAL HERITAGE PROGRAM RANKS: GNR SNR [S1S3]

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

COMMENTS: Until recently discovered at Mt. Mitchell, B. sexnotata has not been recorded in North Carolina since 1953. There is a possibility that this species is a rare northern disjunct, but the distribution of its host plants suggests that it could be a lot more common. As with many of our smaller micros, more surveys need to be conducted in order to assess this species conservation status. Larval surveys probably offer the best means of obtaining this information.