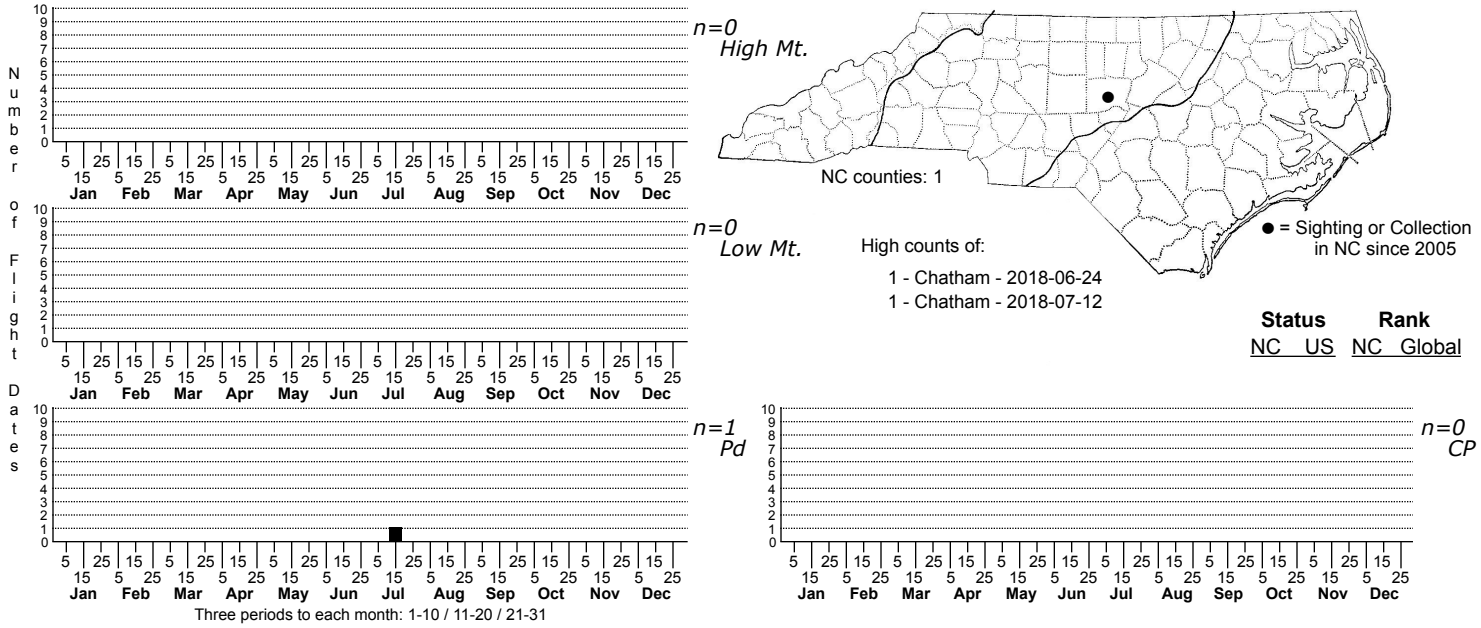
Mompha cephalanthiella Buttonbush Leafminer Moth



FAMILY: Momphidae SUBFAMILY: Momphinae TRIBE:
TAXONOMIC_COMMENTS: The genus Mompha consists of around 46 described species in North America. In addition, numerous species remain to be described that are centered in the southwestern US (Bruzzese et al., 2019). The adults are small moths that have two or more tufts of raised scales on each forewing. The larvae either mine leaves, or bore into the stems, flower buds, flowers, or fruits of their hosts. The majority of species feed on members of the Onagraceae, but others feed on species in the Cistaceae, Lythraceae, Melastomataceae, and Rubiaceae.

FIELD GUIDE DESCRIPTIONS:
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: Wagner et al. (2004)
TECHNICAL DESCRIPTION, IMMATURE STAGES: Wagner et al. (2004)

ID COMMENTS: The following description is based on accounts by Chambers (1871) and Wagner et al. (2004). The frons is shiny white and the labial palp grayish above. The antenna is annulated with pale and dark brown rings on the lower three-fourths. The distal fourth has four or five narrow white rings that are widely separated by black segments. At the very tip, there are one or two white flagellomeres that are preceded by five dark flagellomeres. The ground color of the thorax and forewing is dark bluish gray and flecked with whitish scales. The forewing is irregularly spotted with velvety black, and there is often an ocherous patch near the base of the wing and near the disc. There are scale tufts at one-third and three-fourths the wing length. The basal scale tuft is blackish, while the outer tuft is ochreous and margined in black. The costa usually has three dark brown stigulae that are evident at about one-third, two-thirds, and three-fourths. There is an acutely angled indistinct dark patch with a band of grayish white scales on the apical end of the wing. A dark marginal line is present at the base of the cilia. The hindwing is uniformly grayish and the legs have dark banding. Mompha cephalonthiella varies in patterning and coloration (often influenced by light conditions), and generally resembles M. solomoni. This species lacks the conspicuous, elongated, black dash in the discal area of the forewing that is joined with a white dash, as seen in M. solomoni. In addition, M. cephalanthiella has one or two white flagellomeres on the antenna tip that are preceded by five dark flagellomeres. In M. solomoni, the five dark flagellomeres are interrupted by a pale ring. Wagner et al. (2004) provide additional characters that are helpful in distinguishing these species from one another.

DISTRIBUTION: The range is rather poorly documented and includes California and much of the eastern US. Scattered populations have been found from Maine to as far west as Oklahoma and as far south as Florida. As of 2021, our only records are from the eastern Piedmont.

FLIGHT COMMENT: This species appears to have two broods per year, with adults active from at least June-October (Wagner et al. 2004). The adults from the last brood overwinter. As of 2021, our very limited records based on occupied mines are from June and July.

HABITAT: Local populations are only found in association with Buttonbush, which is a wetland species that is found in sunny to partially shaded wetlands. Typical habitats include pond and lake margins, marshes, and ditches.

FOOD: This species only feeds on Buttonbush (Cephalanthus occidentalis) (Eiseman, 2022), which has been confirmed as the host in North Carolina.

OBSERVATION_METHODS: The adults appear to rarely visit lights and are best obtained by rearing them from leaf mines.

NATURAL HERITAGE PROGRAM RANKS: GNR SU

STATE PROTECTION:

COMMENTS: We currently do not have sufficient information on the distribution and abundance of this species in North Carolina to accurately assess is conservation status.