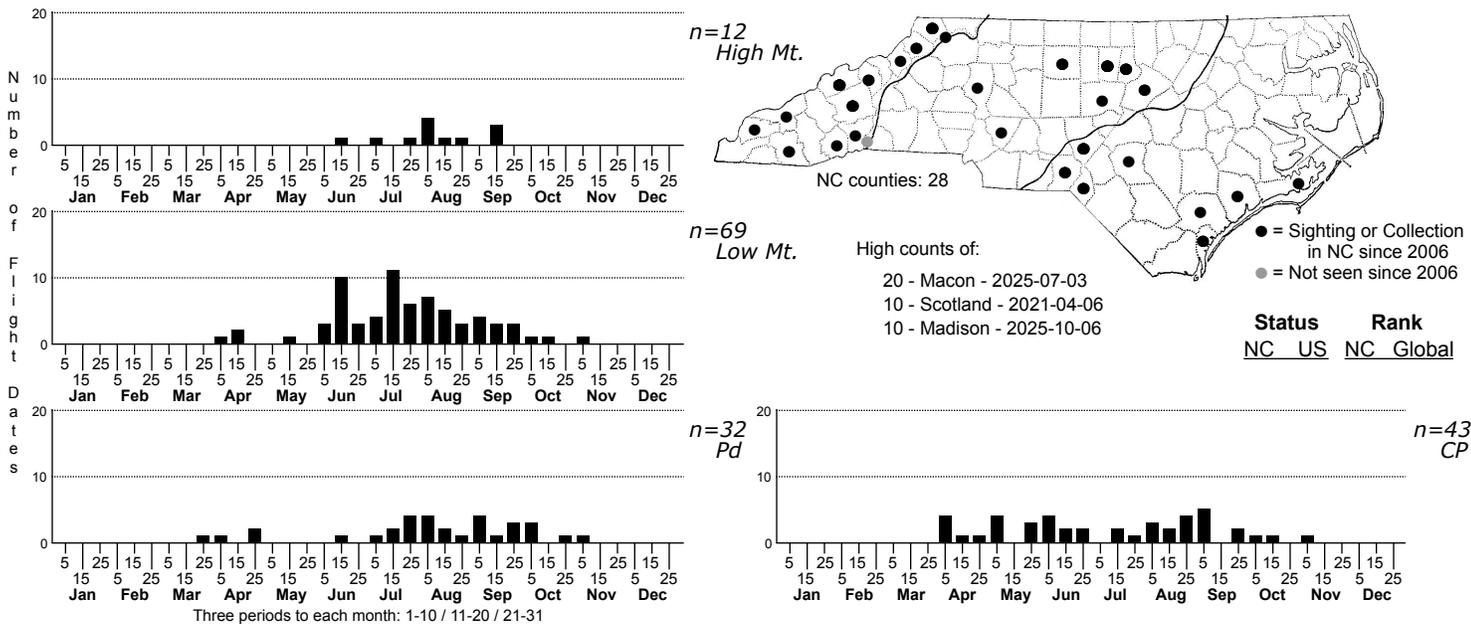


# *Endothenia hebesana* Verbena Bud Moth



FAMILY: Tortricidae SUBFAMILY: Olethreutinae TRIBE: Endotheniini

TAXONOMIC COMMENTS: As currently recognized, *Endothenia hebesana* is widely distributed across the US and southern Canada and may comprise a species complex. BOLD currently recognizes four BINS, but populations in North Carolina have not been included in molecular comparisons across the range of this species. Here, we currently treat members of these four BINS as part of a single, geographically variable species.

FIELD GUIDE DESCRIPTIONS: Beadle and Leckie (2012)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS:

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: This is a fairly distinctive tortricid that has complex mottling on the head, thorax and forewing that consists of mixtures of black, white, orangish-brown, dark-brown and bluish-gray patches. The antemedial fascia and median fascia are irregularly-shaped and consists mostly of chocolate-brown and blackish scales, while the interfascial region is well-represented with bluish-gray scaling. The median fascia has two prongs that project rearward towards a postmedial band that consists of three or four grayish spots that are surrounded by black and connected to form a bar. Orangish-brown scaling is relatively conspicuous along the termen and the distal half of the costa (Gilligan et al., 2008).

DISTRIBUTION: *Endothenia hebesana* is broadly distributed in mesic to somewhat drier habitats across the US and southern Canada. In the US, western populations are mostly restricted to portions of western California and the central and southern Rockies. Populations in the eastern US are broadly distributed from southern Texas northward to South Dakota and eastward from Maine southward to central Florida. As of 2025, we have records from all three physiographic provinces in the state, but with most restricted to the Blue ridge, Piedmont and coastal regions of the Coastal Plain.

FLIGHT COMMENT: The adults have been documented year-round in different areas of the range, with a peak during the warmer months of the year. As of 2025, we have records from late-March through early-November that likely reflect several overlapping generations.

HABITAT:

FOOD: The larvae are polyphagous. and feed on a variety of herbaceous plants. Reported hosts include foxglove (*Aureolaria*), turtleheads (*Chelone* spp.), larkspur (*Delphinium*), Soapwort Gentian (*Gentiana saponaria*), irises, beardtongue (*Penstemon*), false-dragonhead (*Physostegia*), Purple Pitcherplant (*Sarracenia purpurea*), skullcap (*Scutellaria*), goldenrod (*Solidago*), hedge-nettle (*Stachys*), American Germander (*Teucrium canadense*), mullein (*Verbascum*), and vervain (*Verbena*) (MacKay, 1959; Gilligan & Epstein, 2014). As of 2025, we have feeding records of larvae using Pink Turtlehead (*Chelone lyonii*) and Scarlet Beebalm (*Monarda didyma*).

OBSERVATION\_METHODS:

NATURAL HERITAGE PROGRAM RANKS: GNR S4S5

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