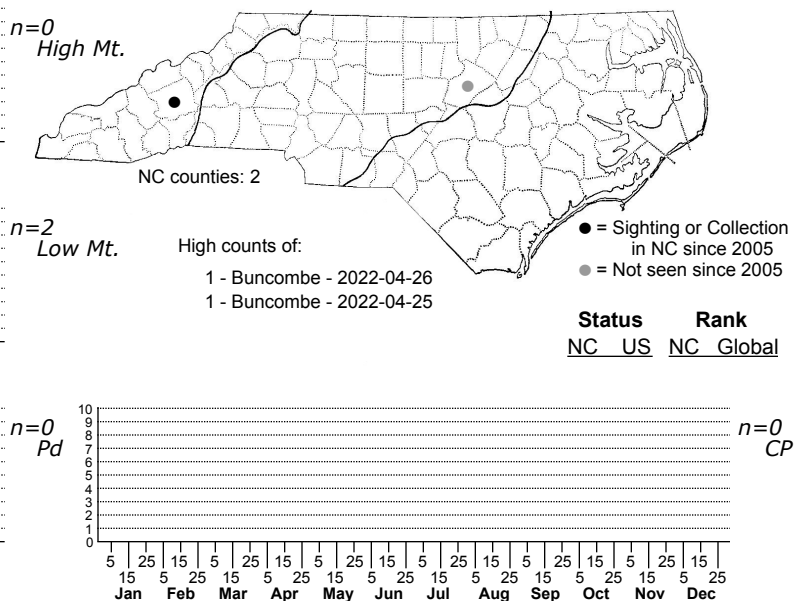
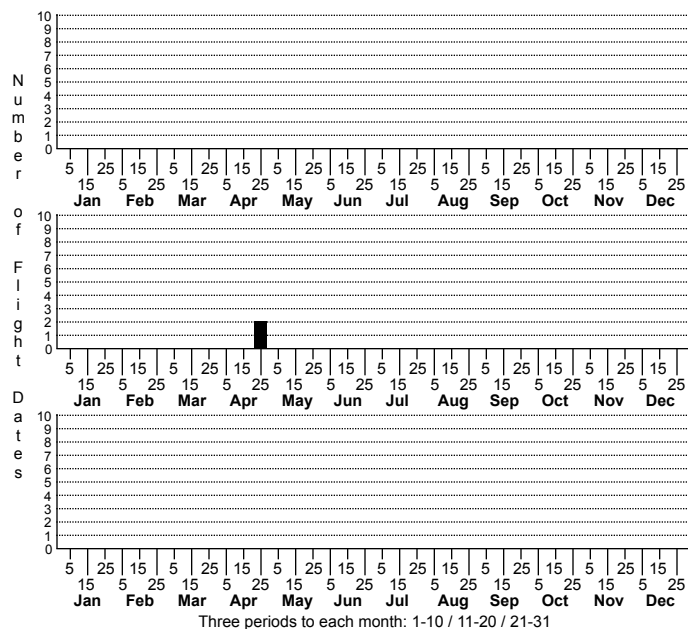


## *Phyllonorycter caryaealbella* Pecan Blotchminer Moth



FAMILY: Gracillariidae SUBFAMILY: Lithocolletinae TRIBE: [Lithocolletini]

TAXONOMIC\_COMMENTS: *Phyllonorycter* is a genus of small and often colorful moths, with 79 described species in North America. The larvae of most form underside tentiform mines on woody plants and pupate within the mines.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Braun, 1908

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: The following description is primarily based on descriptions in Clemens (1871) and Braun (1908). The head, palps, tuft, antennae and thorax are silvery white. The basal portion of the forewing is silvery white, and there is a wide pale golden basal streak along the costal margin from the base to near the first costal streak. The basal streak may have a faint darker margin on the dorsal side that separates the golden color above from the silvery white below. The basal white portion in some lights may appear suffused with pale golden. The apical two-thirds or more of the wing is pale golden, with four costal and two dorsal streaks. These are silvery white, and all have a dark margin on the anterior (basal) edge. The first dorsal and first costal streaks are oblique and form a pair near the middle of the wing. The dorsal streak is the larger, and the dark margins of the two streaks nearly unite at an acute angle on the fold. The second dorsal and second costal streaks are less oblique and form a second pair at about two-thirds. The dorsal streak is larger and has a wider dark margin. The third dorsal and costal streaks form a smaller third pair behind the second pair. The cilia are pale fulvous with a brown marginal line, and there is a small, dark apical spot near the base of the cilia.

*Phyllonorycter olivaeformis* is similar, but the basal portion of the forewing is brownish ochreous (concolorous with the rest of the wing) rather than silvery white. It also has a median white basal streak (pale golden in *P. caryaealbella*) that is dark margined toward the costa. In addition, the first dorsal streak has its dark margin bent backward on the fold for a short distance, then continued obliquely upward. *Phyllonorycter caryaealbella* lacks this kink in the dark margin. *Phyllonorycter obscuricostella* is also similar, but the apex and dark margin of the first dorsal streak reach nearly to the apex of the second costal streak.

DISTRIBUTION: *Phyllonorycter caryaealbella* is currently known only from the eastern US, including Wisconsin, Kentucky, North Carolina, Georgia, and Florida (Eiseman, 2019). As of 2024, we have only one site record that is from Buncombe County, with another questionable literature record from Wake County.

FLIGHT COMMENT: Based on very limited records, the adults appear to be active during the late-spring and summer months following the spring leaf-out.

HABITAT: *Phyllonorycter caryaealbella* is a poorly studied species that appears to specialize on hickories. The habitats presumably are hardwood or mixed hard-wood pine forests that support the host species, as well as pecan orchards.

FOOD: The only known hosts are Pecan (*Carya illinoensis*) and Mockernut Hickory (*C. tomentosa*) (Eiseman, 2022).

OBSERVATION\_METHODS: The adults have been reared from leaf mines on hickories. It is uncertain if they are attracted to lights, but probably are to some degree like most other *Phyllonorycter*.

NATURAL HERITAGE PROGRAM RANKS: GNR S1S2

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 rare in North Carolina, with only one site record from Buncombe County as of 2024.