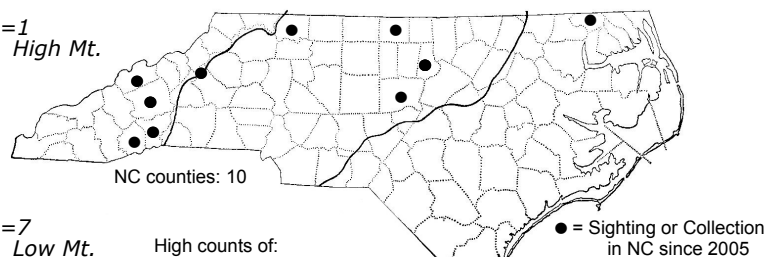
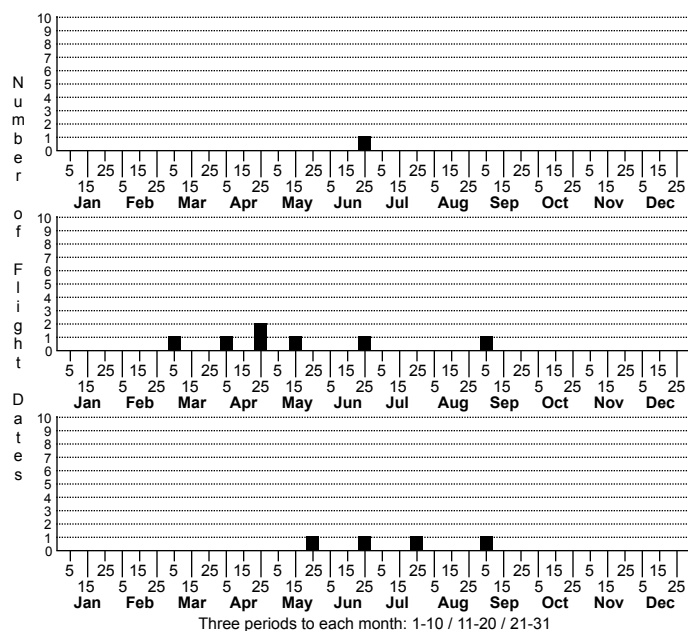


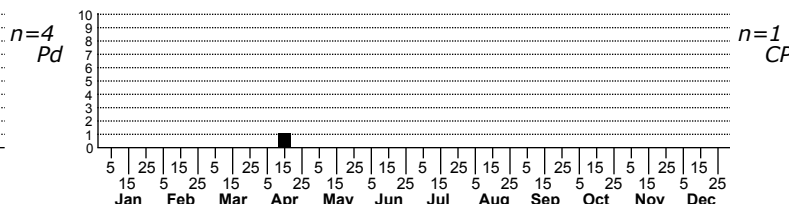
Phyllonorycter aeriferella None



High counts of:

30 - Henderson - 2021-09-24
5 - Buncombe - 2021-10-10
5 - Burke - 2021-10-11

Status Rank
NC US NC Global



FAMILY: Gracillariidae SUBFAMILY: Lithocolletinae TRIBE:

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: Clemens, 1859; Braun, 1908.

TECHNICAL DESCRIPTION, IMMATURE STAGES: Clemens, 1859; Braun, 1908.

ID COMMENTS: The following is mostly based on descriptions provided by Clemens (1859) and Braun (1908). The antenna is dark brown above and white beneath. The front of the head is silvery white, while the vertex, tuft, and ground color of the forewings vary from light brown to pale reddish saffron. There is often a golden hue from the middle to the base. The forewing has four silvery costal streaks and three dorsal streaks, all of which have a black margin on the anterior (basal) side except for the last costal streak. The first costal streak begins just before the middle of the wing and opposes a large, slightly curved, dorsal streak that begins more basally. Both streaks are often suffused with pale golden, are oblique, and have tapered tips that nearly touch one another. A second pair of dorsal and costal streaks occurs just beyond mid-length. The dorsal streak is more triangular-shaped and less oblique than the first dorsal streak. The dark margins of both the first and second pair of streaks extend beyond the white tips and often unite with their opposing margins. Beyond the second pair are the remaining costal streaks that project slightly anteriorly, and the third dorsal streak that is very reduced in size (sometimes not readily evident). The apical spot is small and black, with the scales behind it having a bluish luster. The marginal line at the base of the cilia is blackish and well defined, and the cilia are dark grayish with a fulvous hue. The hindwings are dark gray with fulvous cilia.

DISTRIBUTION: The distribution of *Phyllonorycter aeriferella* is rather poorly documented. In Canada, populations occur in Ontario and Quebec. In the eastern US, there are scattered records from Maine to as far west as Illinois, and southward to the Carolinas. As of 2022, our records for North Carolina are from all three physiographic regions of the state.

FLIGHT COMMENT: Local populations appear to have two or more broods per year. As of 2022, our earliest record for an adult in North Carolina is 12 April and an unoccupied mine was found on 23 June. Clemens (1859) found occupied mines in the fall, and we have found occupied mines in October and November in North Carolina. These observations suggest that individuals likely overwinter as larvae or pupae, with the adults emerging shortly after the spring leaf-out.

HABITAT: This species exploits oaks, and is found in a wide variety of habitats that range from bottomland forests to drier forested bluffs and ridges.

FOOD: The larvae feed on a wide selection of oaks (Eiseman, 2019). Documented hosts include White Oak (*Quercus alba*), Swamp White Oak (*Q. bicolor*), Southern Red Oak (*Q. falcata*), Bear Oak (*Q. ilicifolia*), Shingle Oak (*Q. imbricaria*), Laurel Oak (*Q. laurifolia*), Burr Oak (*Q. macrocarpa*), Blackjack Oak (*Q. marilandica*), Rock Chestnut Oak (*Q. montana*), Chinquapin Oak (*Q. muehlenbergii*), Black Oak (*Q. velutina*), and Live Oak (*Q. virginiana*). In North Carolina, we have records of this species using Chestnut Oak, Live Oak, Cherrybark Oak (*Q. pagoda*), White Oak, Water Oak (*Q. nigra*), and either Southern Red Oak or Black Oak (a young plant that was difficult to identify).

OBSERVATION_METHODS: The adults are attracted to UV lights and have been successfully reared from leaf mines.

NATURAL HERITAGE PROGRAM RANKS: GNR S2S4

STATE PROTECTION:

COMMENTS: We currently do not have sufficient data on the distribution and abundance of this species within the state to accurately assess its conservation status.