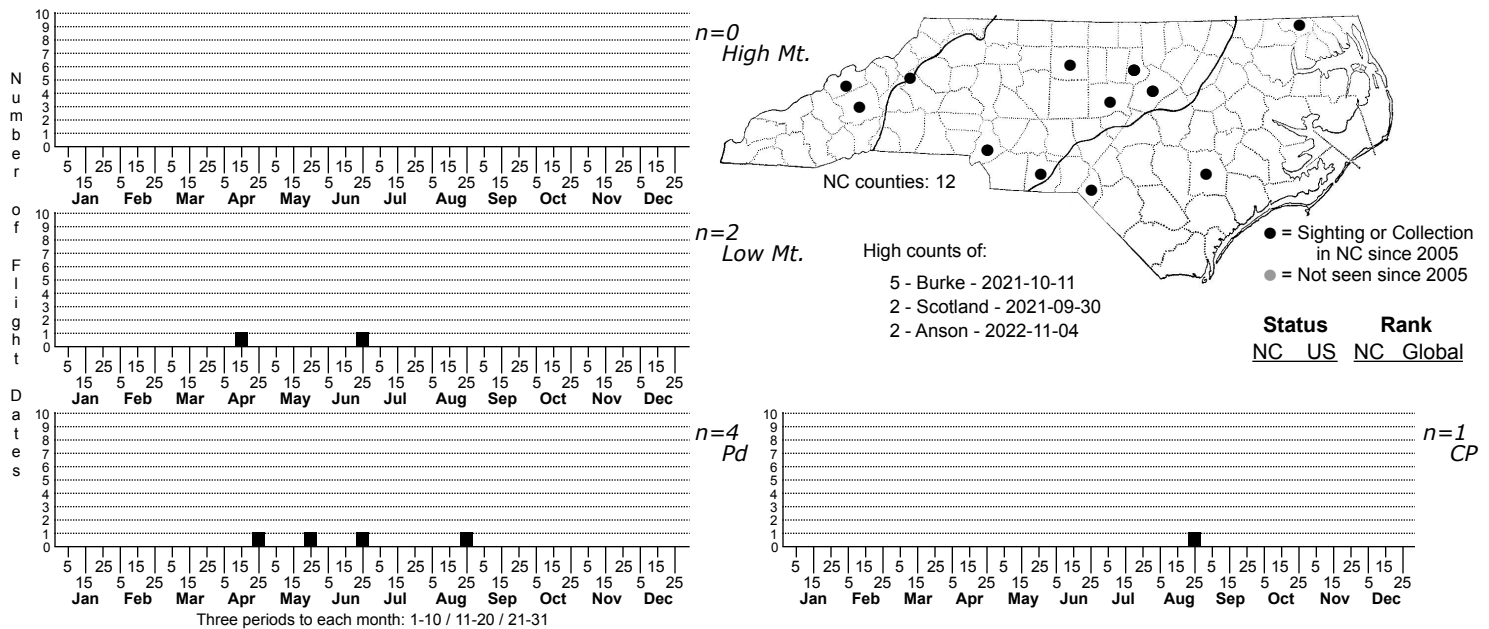


Tischeria quercitella Oak Blotch Miner Moth



FAMILY: Tischeriidae SUBFAMILY: [Tischeriinae] TRIBE: [Tischeriini]

TAXONOMIC_COMMENTS: The genus *Tischeria* currently contains four recognized species of leafminers in North America. All but one species (*T. quercitella*) specialize on *Ceanothus*.

FIELD GUIDE DESCRIPTIONS: Leckie and Beadle, 2018.

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Braun, 1972

TECHNICAL DESCRIPTION, IMMATURE STAGES: Braun, 1972

ID COMMENTS: The following is from Braun's (1972) description of adults based on studies of 95 specimens from throughout the range of the species. The face is ochreous, and the tuft is brownish ochreous. The scape of the antenna is brownish ochreous, while the shaft is ochreous and becomes darker towards the tip. The forewing is orange-ochreous, and the scales of the entire wing surface are tipped with brown to produce a finely dusted appearance. The wing is darker along the costa, especially in the outer half. The scales in the apical area are more conspicuously dark-tipped and appear coarser. At the tornus, there is a dark brown or blackish patch (very rarely missing), and the cilia are fuscous. The hindwing and cilia are fuscous and have a faint reddish tinge. The legs are pale brownish ochreous, and the spurs of the hind tibiae are brown. The abdomen is pale ochreous, and more or less dusted. Two features that help to distinguish this species are the presence of a dark brown or blackish patch at the tornus (anal angle), and the fact that all scales on the forewing surface are tipped with brown. The leaf mines of *T. quercitella* are also very distinctive since this is the only oak-feeding tischeriid in North America that spins a circular nidus. The nidus is overlain with radiating dark purplish lines that are unique to this species.

DISTRIBUTION: *Tischeria quercitella* is widely distributed in eastern North America from southern Canada (Ontario; New Brunswick) southward to southern Florida, and westward to central Texas, central Oklahoma, Missouri, eastern Kentucky, Illinois, Wisconsin and Minnesota. As of 2023, our records for North Carolina are primarily from the Piedmont and Coastal Plain, with two records from lower elevations in the Blue Ridge.

FLIGHT COMMENT: The adults have been found during every month of the year, but typically fly from April through September in most areas of the range. Local populations are multivoltine. As of 2023, our records extend from mid-April though late August.

HABITAT: The larvae of *Tischeria quercitella* mine oak and chestnut leaves, and the species is restricted to habitats with the host species.

FOOD: The larvae primarily mine the leaves of oaks, but occasionally use chestnuts (Godfrey et al., 1987; Heppner, 2007; Eiseman, 2022; Robinson et al., 2010). The reported hosts include American Chestnut (*Castanea dentata*), White Oak (*Quercus alba*), Southern Red Oak (*Q. falcata*), Bear Oak (*Q. ilicifolia*), Shingle Oak (*Q. imbricaria*), Chestnut Oak (*Q. montana*), Chinquapin Oak (*Q. muehlenbergii*), Water Oak (*Q. nigra*), Northern Red Oak (*Q. rubra*), Post Oak (*Q. stellata*), and Black Oak (*Q. velutina*). In North Carolina, mines have been recorded on White Oak, Southern Red Oak, Chestnut Oak, Water Oak, Pin Oak (*Q. palustris*), and Post Oak.

OBSERVATION_METHODS: The adults are attracted to UV lights. Searching for the distinctive leaf mines on oaks and chestnuts could yield many new locality records.

NATURAL HERITAGE PROGRAM RANKS: GNR S3S4

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

COMMENTS: