

FAMILY: Heliozelidae SUBFAMILY: [Heliozelinae] TRIBE: [Heliozelini]

TAXONOMIC_COMMENTS: This New World genus includes 18 described North American species of small leaf-mining moths, as well as several undescribed species. When mature, the larva cuts a disc of tissue out of the leaf and uses it to form a cocoon. All known species of <i>Coptodisca</i> feed on woody plants, and most are restricted to a single plant genus.

FIELD GUIDE DESCRIPTIONS: ONLINE PHOTOS: TECHNICAL DESCRIPTION, ADULTS: Forbes, 1923. TECHNICAL DESCRIPTION, IMMATURE STAGES: Eiseman, 2019.

ID COMMENTS: The head, thorax, and general ground color of the forewing is silvery gray, with darker hues on the posterior half of the wing. There is a pair of triangular-shaped costal and dorsal whitish streaks at about two-thirds that extends inward to nearly the mid-wing. Both are dark margined on the anterior and posterior edges, and they converge towards their apices. There is a golden yellow wash immediately anterior to the streaks that fades into the silvery gray ground color. Behind the costal streak there is a large golden yellow region that contains a very indistinct and small black costal streak that runs roughly perpendicular to the costa. A smaller golden yellow patch or wash may be evident towards the dorsal margin but is often nearly or completely obscured with varying levels of darker pigmentation. The area of dark shading extends from behind the dorsal streak to the apical patch. The apical patch is blackish, often somewhat triangular, and covers the base of the dorsal cilia. A dark streak often is present that extends from the mid-point of the posterior edge of the apical patch to the apex of the cilia. The cilia are light silvery gray. <i>Coptodisca ostryaefoliella</i>, <i>C. saliciella</i>, and <i>C. splendoriferella</i>), but each specializes on different host plants (Forbes, 1923). Male genitalia of <i>Coptodisca</i> are difficult to dissect and embed in a fixed position, and relatively few specimens have been collected of these closely related forms. Reliable identification is most easily achieved by rearing adults from their host plants. This is the only <i>Coptodisca</i> species in eastern North America that feeds on <i>Costrya</i>, so any adults raised from mines on this host plant can be safely assumed to be <i>C. ostryaefoliella</i>.

DISTRIBUTION: We have remarkably few records of this species, but scattered populations have been found in eastern North America, including Ontario, Quebec, Pennsylvania, North Carolina and Alabama. As of 2020, our records for North Carolina are based on Tracy Feldman's discovery of Piedmont populations in Wake and Durham Cos.

FLIGHT COMMENT: Larvae are active in late September and early October in Pennsylvania. In North Carolina, Tracy Feldman found empty mines in May, and an occupied mine in late June, with the adult emerging in early July.

HABITAT: Local populations are strongly associated with the host plant, American Hop-hornbeam. This species prefers rich, mesic hardwood forests, particularly those with loamy soils that are not strongly acidic.

FOOD: Larvae feed on American Hop-hornbeam (<i>Ostrya virginiana</i>; Robinson et al., 2010; Eiseman, 2019), which has been confirmed as the host in North Carolina.

OBSERVATION_METHODS: We recommending searching for leaf mines during the summer months and rearing and photographing the adults.

NATURAL HERITAGE PROGRAM RANKS: GNR S1S3

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

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

March 2025

The Moths of North Carolina - Early Draft