

FAMILY: Coleophoridae SUBFAMILY: TRIBE:

TAXONOMIC_COMMENTS: <i>Coleophora kalmiella</i> specializes on species of <math><i>Kalmia</i>. Eiseman (2021) suspected that there may be two species that are miners of <i>Kalmia</i>, with one an undescribed species. Here, we treat this species as being a member of the North Carolina fauna with the understanding that it may be a member of an unresolved species complex.

FIELD GUIDE DESCRIPTIONS: ONLINE PHOTOS: TECHNICAL DESCRIPTION, ADULTS: TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: An adult that was reared by Eiseman (2021) from $\langle i \rangle$ Kalmia angustifolia $\langle i \rangle$ was uniformly light brown, with brown and white annulations on the antennae. Other adults that he reared from $\langle i \rangle$ K. latifolia $\langle i \rangle$ were similar but had a distinct white costal margin on the forewing. Two adults reared from $\langle i \rangle$ K. latifolia $\langle i \rangle$ in North Carolina also possess this feature. It is possible that these are different species, but additional work is needed to verify this.

DISTRIBUTION: The range is rather poorly documented and mostly based on leaf mine records. Adults or mines have been found in Canada (Ontario, Quebec, Prince Edward Island and Nova Scotia), and in the US from Vermont and Massachusetts southward along the Atlantic Coast states to North Carolina (Eiseman, 2022). there are also historical records from Kentucky. Jeff Niznik and David George recently discovered this species in the Piedmont of North Carolina, which is the southernmost known record for this species.

FLIGHT COMMENT: The adult emerge from late May in Massachusetts to late June to early July in Nova Scotia (Eiseman, 2021). In North Carolina, our records of adults are from late April to early May.

HABITAT: Local populations are generally associated with <i>Kalmia</i> thickets.

FOOD: The larvae specialize on <i>Kalmia</i> species (Eiseman, 2022). The only known hosts are Sheep Laurel (<i>Kalmia angustifolia</i>) and Mountain Laurel (<i>Kalmia latifolia</i>). As of 2025, we have found leaf mines and cases on Mountain Laurel.

OBSERVATION_METHODS: The adults resemble several other <i>Coleophora</i> species and cannot be reliably identified from images unless they are reared. We recommend searching Mountain Laurel for the mines and larvae.

NATURAL HERITAGE PROGRAM RANKS: GNR SNR [S1S3]

STATE PROTECTION:

COMMENTS: As of 2025 we have one site record each from the Piedmont and the Blue Ridge. Additional information is needed on the distribution and abundance of this species in North Carolina before we can assess its conservation status.