

FIELD GUIDE DESCRIPTIONS: ONLINE PHOTOS: TECHNICAL DESCRIPTION, ADULTS: Forbes (1923) TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: The following description is based in part on that of Forbes (1923). The palps and face are whitish and phase into brown or grayish-brown on the vertex and thorax. The forewing ground color is a mix of brown, light gray, and golden brown, with gray coloration mostly limited to the basal half and golden-brown coloration to the apical half. The dorsal patch that is present at the middle of the inner margin on most of our *<*i>Grapholita*<*/i> species is missing or obscure, and the ocellus has a golden-brown to dark brown ground with two or three black dots and a lead-colored, vertical bar on either side. The costa has 9-10 well-developed, alternating black and whitish striae, with several of the white striae phasing into silvery-blue and terminating near the middle of the wing. The white striae that lack the silvery-blue portion phase into yellowish-brown instead. The basal three striae are longer than the rest and project obliquely from the costa towards the ocellus, while the remainder are shorter and nearly perpendicular to the costal margin. A dark eyespot is usually present at the apex, and the fringe is silvery with a black basal line along the termen. The hindwing is distinctive in being mostly white, with the apical third blackish. This species is easily recognized by the absence of a dorsal patch, the elongated basal striae on the costa, and the black and white hindwings.

DISTRIBUTION: <i>Grapholita eclipsana</i> occurs in the eastern US and in adjoining areas of southern Canada (Ontario; Quebec; New Brunswick). In the US, the range extends from Maine southward through the Appalachian region to western North Carolina and eastern Tennessee, and westward to Wisconsin, Iowa, Illinois, and Arkansas. As of 2022, all of our records are from lower-elevation sites in the Blue Ridge.

FLIGHT COMMENT: The adults have been observed from February through August in different areas of the range, with a seasonal peak typically in April through June. As of 2022, our records extend from early May to early June. Local populations appear to be single-brooded.

HABITAT: Most of our recorded are from areas with deciduous forests or forests mixed with openings such as roadways or fields.

FOOD: The only verified host based on rearing is Lead Plant (<i>Amorpha canescens</i>; Godfrey et al., 1987). This species does not occur in North Carolina and other hosts are presumably used within the state. Forbes (1923) noted that the larvae feed on grapes, but this requires confirmation.

OBSERVATION_METHODS: The adults are attracted to lights.

NATURAL HERITAGE PROGRAM RANKS: GNR [S2-S3]

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

COMMENTS: This species is near the southern limit of its range in North Carolina and appears to be uncommon within the state. We need additional information on host use, distribution, and abundance before we can assess its conservation status.