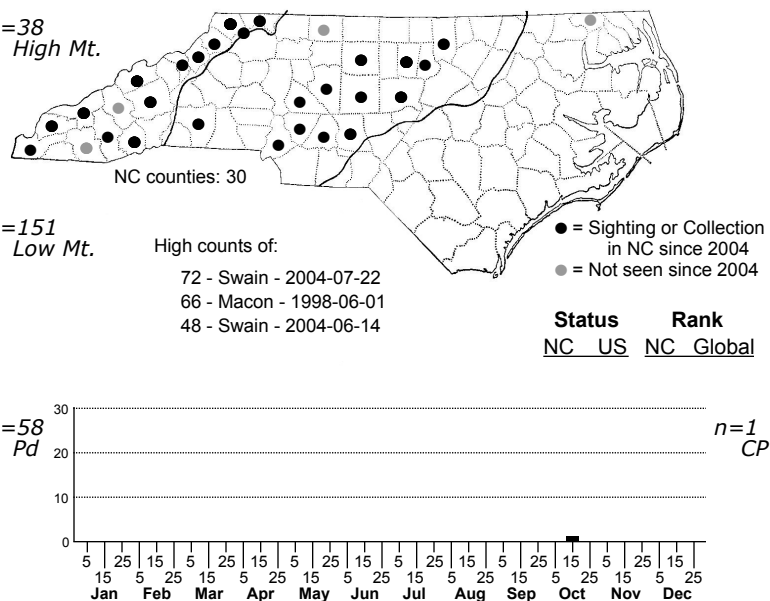
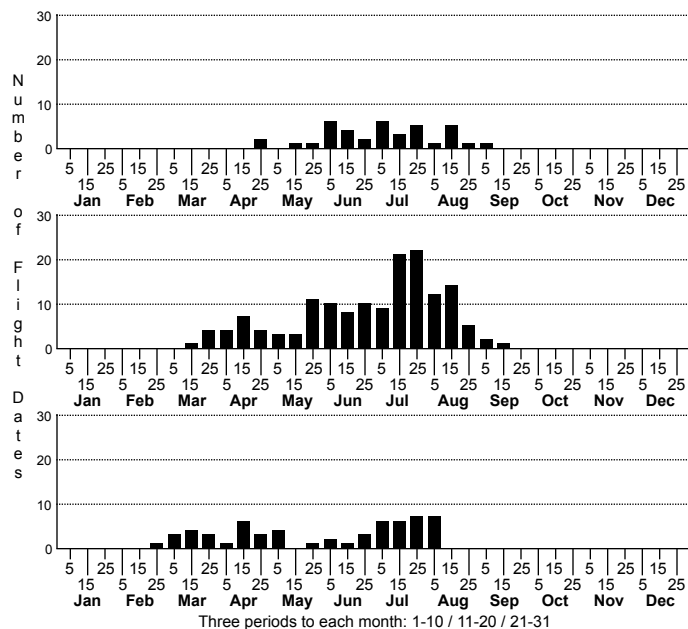


## *Lambdina fervidaria* Curve-lined Looper



FAMILY: Geometridae SUBFAMILY: Ennominae TRIBE: Ourapterygini

TAXONOMIC\_COMMENTS: One of nine members of this genus that occur in North America, four of which have been recorded in North Carolina. Two subspecies have been described, *L. fervidaria fervidaria*, which is primarily southern, and *L. fervidaria athasaria*, which has sometimes been considered a separate species (e.g., Forbes, 1948; Wagner et al., 2001; Maier et al., 2011). NatureServe currently recognizes *athasaria* as a full species.

FIELD GUIDE DESCRIPTIONS: Covell (1984); Beadle and Leckie (2012)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Forbes (1948)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Forbes (1948); Wagner et al. (2001); Wagner (2005); Maier et al. (2013)

ID COMMENTS: A medium-sized, yellowish-brown Geometrid. The ground color is a pale cream, overlain by a conspicuous, coarse dusting of somewhat darker gray; in the form found from southern New Jersey to North Carolina (probably true *Lambdina fervidaria* according to Forbes), the dark dusting on the wings can be dominant, with only flecks of the cream color showing through (Forbes, 1948). Both the antemedian and postmedian are darker brown but edged with yellow or cream on the sides away from the median area; in the darker southern form (*L. fervidaria* according to Forbes, 1948), the yellow edging to the lines is more contrasting. The veins may also be edged with cream and the head, antennae, and fore coxae are yellow. *Lambdina pellucidaria* is similar but has a darker, smoother, and more translucent gray-brown ground color, lacking both the conspicuous dusting and yellow edging to the lines. *Lambdina canitiaria* is also similar but has a gray rather than yellow head (Forbes, 1948). *Lambdina fiscellaria*, as well as *Besma endropiaria* and pale females of *B. quercivoraia*, are other similarly colored species but have more angular wings. *L. fiscellaria* additionally has a strongly angled postmedian -- smoothly curved or relatively straight in *fervidaria* and the two *Besma* species -- and *Besma* usually have at least a partial submedian line that is lacking in *Lambdina* species (Forbes, 1948).

DISTRIBUTION: Recorded primarily in the Mountains and Piedmont in North Carolina, with only one sight record from the northern Coastal Plain.

FLIGHT COMMENT: There may be two distinct flight period in the Piedmont but only one extended flight period in the Mountains, albeit with several peaks in activity.

HABITAT: Records from the Piedmont come primarily from dry upland stands of hardwoods or mixed forests. Records from the Mountains come from both dry ridgetop hardwoods and mesic stands of riparian or cove forests at relatively low elevations and from stands of Northern Red Oak forests and other hardwoods at high elevations.

FOOD: Polyphagous. *L. fervidaria* is believed to feed primarily on hardwoods, including Oaks, American Hornbeam, Hop-hornbeam, Witch Hazel and probably many other species (Wagner, 2005).

OBSERVATION\_METHODS: The majority of our records come from 15 watt UV traps, with a few also observed at building lights. As in other members of this genus, *L. fervidaria* probably does not come to bait or visit flowers.

NATURAL HERITAGE PROGRAM RANKS: G5 [S5]

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

COMMENTS: Occurring across most of the state and common to abundant in a wide range of habitats, this species appears to be secure in North Carolina. The taxonomic status of *L. fervidaria* as distinct from *athasaria*, *pellucidaria*, or *canitiaria* still needs to be determined, however, which may affect the status of these species, depending on their individual host plant and habitat associations.