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Lambdina pellucidaria Yellow-headed Looper Moth

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.

FIELD GUIDE DESCRIPTIONS: Covell (1984) 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, grayish-brown Geometrid. The head and antennae are yellow, contrasting with the darker, gray-brown ground color of the wings and body. As in other members of this genus, the wings are dusted in gray but in pellucidaria, the contrast with the ground color is much less noticeable and the wings have a smoother appearance, becoming translucent with wear (Forbes, 1948). Unlike other members of this genus, the dark brown antemedian and postmedian lines are supposedly not edged with yellow or cream (Forbes, 1948). While most of our specimens from the Coastal Plain conform to this pattern, at least a few specimens in the Piedmont and Mountains have pale edging to their lines on a ground that is otherwise typical of pellucidaria.

DISTRIBUTION: Recorded statewide, including from the Barrier Islands and High Mountains.

FLIGHT COMMENT: Flies primarily in the spring with stragglers occasionally reported in the summer.

HABITAT: Occurs across the state in a variety of habitats containing species of yellow pines. In the Coastal Plain, pellucidaria occurs in Pond Pine Woodlands and other peatlands where Pond Pine is the sole or dominant species of pine; in Coastal Fringe Evergreen Forests and floodplain forests where Loblolly is the sole species; and in both wet and dry Longleaf Pine communities, where Longleaf is the dominant species but where Pond Pine also usually occurs in adjacent peatlands. In the Piedmont, pellucidaria has been recorded in both bottomlands, where Loblolly is likely to be the only pine present, but also in dry glades and ridges, where Shortleaf and Virginia Pine both occur along with Loblolly. In the Mountains, it also occurs in both lowland habitats, where Loblolly is present, as well as dry ridges and summits, where Shortleaf, Pitch, and several other species of pines are present.

FOOD: Larvae are stenophagous, feeding on yellow pines (Forbes, 1948). Wagner et al. (2001) specifically list Loblolly Pine ($\langle i \rangle$ Pinus taeda $\langle i \rangle$), Pitch Pine ($\langle i \rangle$ P. rigida $\langle i \rangle$), Shortleaf Pine ($\langle i \rangle$ P. echinata $\langle i \rangle$), and Virginia Pine ($\langle i \rangle$ P. virginiana $\langle i \rangle$). Our records suggest that Pond Pine ($\langle i \rangle$ P. serotina $\langle i \rangle$) and Longleaf Pine ($\langle i \rangle$ P. palustris $\langle i \rangle$) may also be important hosts in North Carolina.

OBSERVATION_METHODS: Comes well to 15 watt blacklight traps. Not recorded at bait or at flowers.

NATURAL HERITAGE PROGRAM RANKS: G5 SNR [S4S5]

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

COMMENTS: This species is both widespread in North Carolina and uses a variety of habitats, undoubtedly including pine plantations as well as natural, pine-containing communities. It appears to be quite secure.