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## High Mt. 5 Apr 5 Dec NC counties: 2 Jan n=4Sighting or Collection High counts of: Low Mt. in NC since 2004 = Not seen since 2004 2 - Alleghany - 1998-07-21 1 - Ashe - 2000-05-04 Rank Status 1 - Ashe - 2000-07-31 NC US NC Global n=0n=0 Pd CP 25 15 5 25 15 5 25 15 5 25 15 5 25 15 5 25 15 5 25 15 15 5 25 15 5 25 15 5 25 15 5 25 15 5 25 15 5 25 15 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec ∣ 5 ∠. Oct

## Metanema determinata Dark Metanema Moth

FAMILY: Geometridae SUBFAMILY: Ennominae TRIBE: Anagogini TAXONOMIC\_COMMENTS: One of three species in this genus that occur in North America north of Mexico (Pohl et al., 2016), with determinate the only one that has been recorded in North Carolina

FIELD GUIDE DESCRIPTIONS: Covell (1984); Beadle and Leckie (2012) ONLINE PHOTOS: TECHNICAL DESCRIPTION, ADULTS: Forbes (1948); McGuffin (1987) TECHNICAL DESCRIPTION, IMMATURE STAGES: Forbes (1948); Wagner et al. (2001)

ID COMMENTS: A medium-sized, grayish-brown Geometrid with fairly broad, falcate forewings and angulate outer margins on both pairs of wings. The head, body and ground color of the wings is fairly dark gray. The wings are transversely striated with fine darker gray lines; the veins are contrastingly pale. Two pale yellow transverse lines run fairly straight across the wing, the second beginning just before the apex. Hindwings are similar in color and pattern.

DISTRIBUTION: Recorded in North Carolina only in the New River drainage in the northern mountains

FLIGHT COMMENT: Our records come from May and July, which is consistent with the two generations reported in the northern part of its range (Wagner et al., 2001)

HABITAT: Our records all come from riparian shorelines or wetlands where willows are common

FOOD: Stenophagous, feeding primarily on willows but also reported on poplars (Forbes, 1948; Wagner et al., 2001)

OBSERVATION\_METHODS: Comes to light to some extent but to what extent has not been determined in North Carolina

NATURAL HERITAGE PROGRAM RANKS: GNR [S3S4]

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

COMMENTS: This species is a wetland specialist and occupies what appears to be a fairly small range in North Carolina, probably the southernmost outlier of what could be a fairly extensive range along the New River. While we have only a small number of records, this species probably is at least locally common and could occur at other locations in the Mountains. More surveys of willow- or poplar-containing habitats are needed to determine its conservation status within the state.