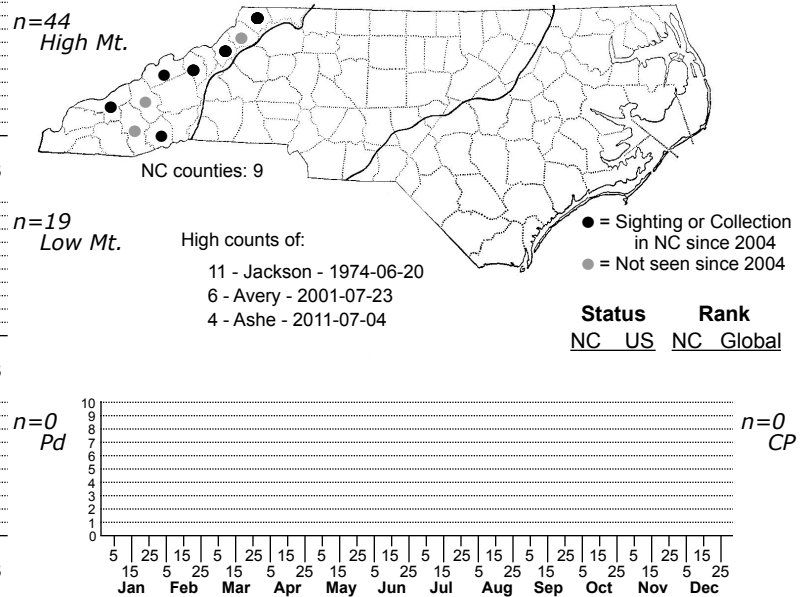
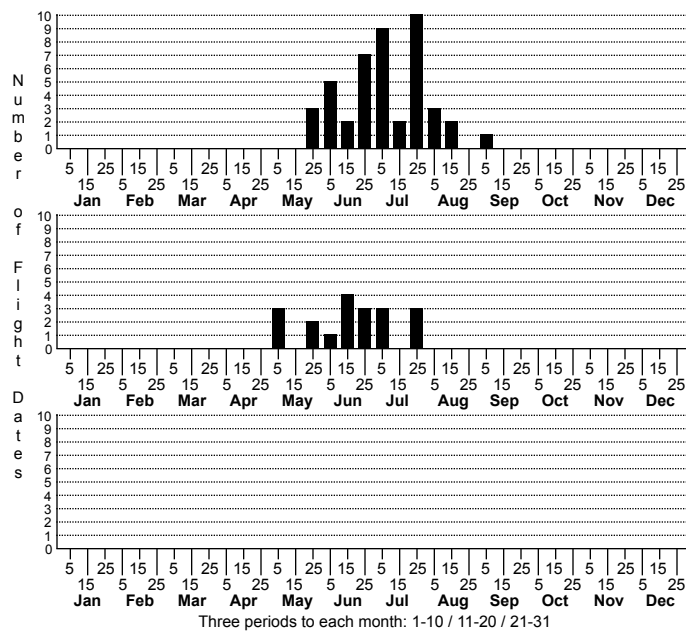


## *Macaria ulsterata* Birch Angle



FAMILY: Geometridae SUBFAMILY: Ennominae TRIBE: Macariini

TAXONOMIC\_COMMENTS: This is one of 73 species in this genus that occur in North America, with 17 species occurring in North Carolina. In the latest checklist of North American Lepidoptera (Pohl and Nanz, 2023), North American members of the genus *Speranza* and *Epelis* were treated as junior synonyms of *Macaria*.

FIELD GUIDE DESCRIPTIONS: Beadle and Leckie (2012)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Ferguson (2008)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Wagner et al. (2001); Ferguson (2008)

ID COMMENTS: A pale gray or white species with a yellow to rust-brown head and the usual *Macaria* pattern of lines, spots, and subapical excavation on the outer margin. Distinguished by its yellow head from the signaria group of conifer feeders, which includes a number of species with similar pale gray and black markings. It lacks the yellowish or brownish tint found in the two other members of the notata group, aemulataria and promiscuata, and has a darker brown subapical mark at the costa, particularly compared to promiscuata, which has a brighter red-brown mark. *Macaria bisignata* is similar in size and pale grayish coloration, but usually has a more brownish tint or dusting -- particularly in the subterminal area -- and much smaller dark spots on the subterminal line.

DISTRIBUTION: Confined to the Mountains. Ferguson (2008) noted that subspecies *appalachiana* occurs at sites between 3,200 and 6,000 ft, which is consistent with our records.

FLIGHT COMMENT: Ferguson (2008) noted that notata appears to be univoltine throughout its range. This appears to be true for our records, which show it flying between late spring and late summer.

HABITAT: Almost all of our records come from upland sites in the High Mountains, from stands of Northern Hardwoods where Yellow Birch is common.

FOOD: Stenophagous, reported to feed on Birch, Alder, and Willow (Ferguson, 2008). Ferguson noted that subspecies *appalachiana* is almost always found where Yellow Birch occurs.

OBSERVATION\_METHODS: Comes well to 15 watt blacklights but we do not have any records from either bait or flowers.

NATURAL HERITAGE PROGRAM RANKS: G4G5 [S3S4]

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

COMMENTS: Appears to be a habitat specialist, strongly associated with Northern Hardwood communities. As such, it is likely to be at least somewhat vulnerable to the effects of climate change, which are likely to reduce its range to just the highest elevations in the Mountains.