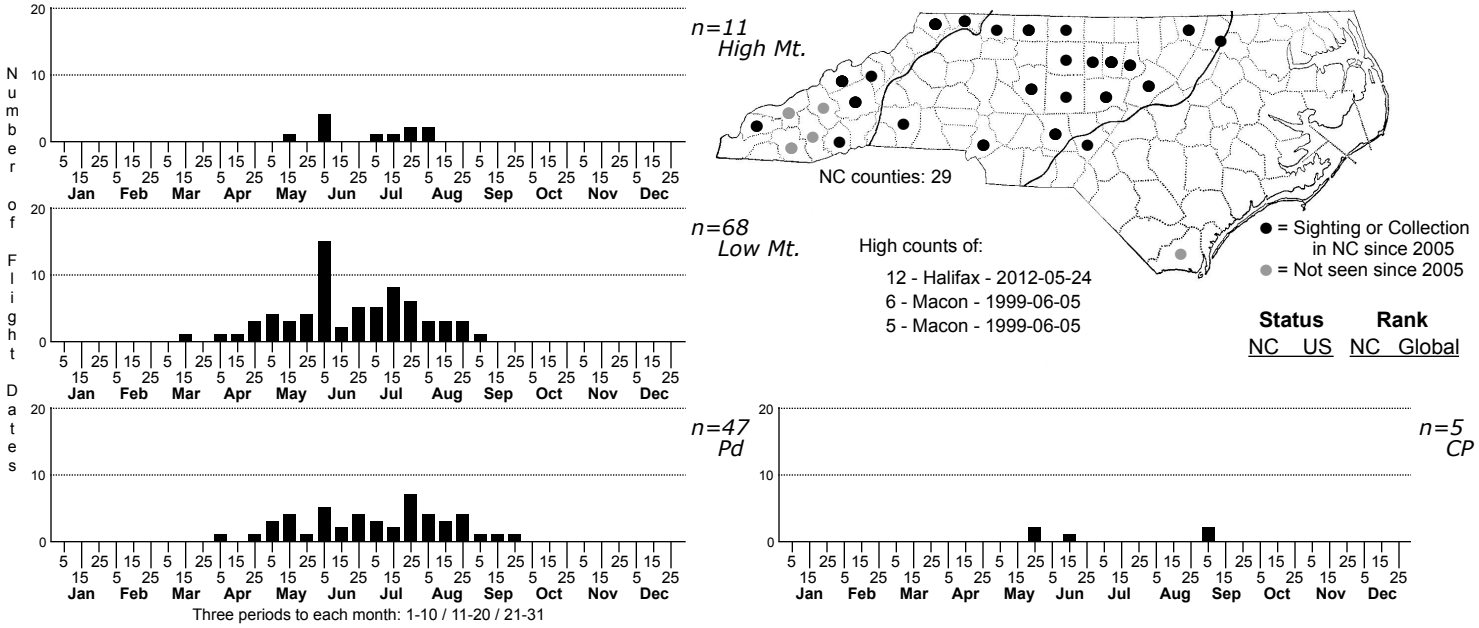
Macaria promiscuata Promiscuous Angle



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. Macaria promiscuata is included in the hardwood-feeding Ulsterata Group (= the Notata Group of Ferguson, 2008), of which M. aemulataria and M. ulsterata are the other members that occur in North Carolina.

FIELD GUIDE DESCRIPTIONS: Covell (1984; as Semiothisa promiscuata).
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: Ferguson (2008)
TECHNICAL DESCRIPTION, IMMATURE STAGES: 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. Very similar to M. ulsterata in pattern but has a yellowish or brownish tint, particularly along the lines, which are gray in M. ulsterata. Macaria aemulataria is also similar but smaller and more heavily dusted with brownish scales, including the basal area, which is usually clear gray or white in M. promiscuata. The large patch of spots on the subterminal line below the apex is usually larger in promiscuata, extending close to the bar that extends downward from the costal margin along the subterminal. That bar is also usually a brighter red-brown than in aemulataria and there is a strongly marked line on the undersides of the wings of the same color -- easily observed when the wings are held vertically. We recommend examining or photographing the hindwings to distinguish between the two species, since worn specimens can be difficult to assign to species.

DISTRIBUTION: Found primarily in the Mountains and Piedmont but rare in the Coastal Plain, being found in that region primarily in the floodplains and adjoining slopes of the brownwater rivers (Roanoke, Tar, Neuse, and Cape Fear).

FLIGHT COMMENT: Ferguson notes that promiscuata has two clear broods in Maryland and probably elsewhere. In North Carolina, it appears to be out during most of the growing season between late spring and late summer.

HABITAT: Redbud often grows on rich soils associated mafic or calcareous rock formations and we have a number of records of promiscuata from such habitats or from similarly rich mountain coves and floodplains. In the Coastal Plain, which is dominated by acidic, nutrient-poor sandy soils, records for M. promiscuata are essentially confined to brownwater river floodplains and adjoining slopes, where rich alluvial soils are carried down from the Piedmont and Mountains.

FOOD: Larvae are monophagous, feeding solely on Eastern Redbud (Cercis canadensis) (Ferguson, 2008).

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

NATURAL HERITAGE PROGRAM RANKS: G4 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 something of a habitat specialist, occurring primarily in stands of hardwood forests growing on rich soils. As such, it is fairly local in occurrence but is nonetheless found fairly widely over the state. Currently, there are few known threats other than loss and fragmentation of its habitat units.