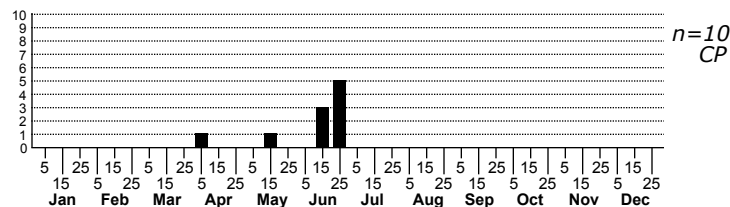
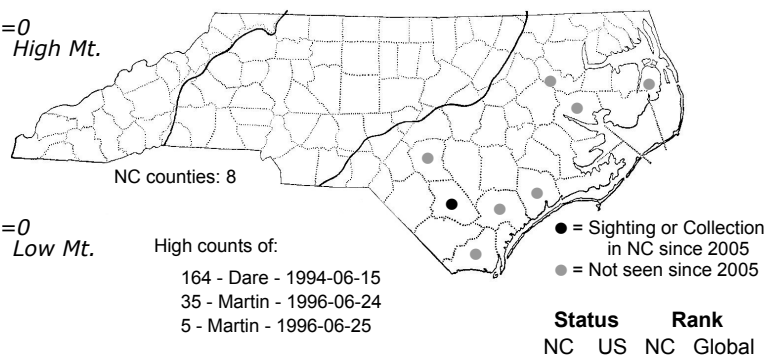


Iridopsis cypressaria Small Cypress Looper Moth



FAMILY: Geometridae SUBFAMILY: Ennominae TRIBE: Boarmiini

TAXONOMIC COMMENTS: One of 20 species in this genus that occur in North America north of Mexico, seven of which have been recorded in North Carolina. In Rindge's 1966 revision of this group, 18 were placed in Anacamptodes, which he recognized as possibly representing the same genus as *Iridopsis*, and two in *Iridopsis* itself. *Iridopsis cypressaria* has apparently been confused with *Glena plumosaria* in the past, including by Forbes (1948), who included *Anacamptodes plumosaria* in his key -- referring to the type specimens of *cypressaria* -- but also mentioning other records outside the range of *cypressaria* and describing characters more consistent with *G. plumosaria* (see Rindge, 1966, for more information).

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Grossbeck (1917); Rindge (1966); Schweitzer et al. (2011)

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: The smallest member of *Iridopsis* in our area. The body and ground color of the wings is pale tan or brownish gray, with the lines and spots marked with darker brown. The discal spots are usually a solid brown on both sets of wings, although with a trace of paler filling in some individuals; this contrasts with the more open, ringed spots found in other members of this genus. The antemedian is usually diffuse or absent (visible in most of our specimens) on the forewing and completely missing on the hindwing. A thin median shade runs from discal spot to the inner margin of the forewing in most of our specimens and the corresponding line on the hindwing is typically the most heavily marked feature on the wings (Rindge, 1966). The postmedian is also usually distinct, again more heavily marked on the hindwing. As in other members of this genus, the postmedian on the forewing is excurred at the end of the cell and somewhat undulating below that point, usually much less so than in other species of *Iridopsis* -- lacking a bulge at C2 -- but less straight than in *Glena plumosaria*.

DISTRIBUTION: Apparently restricted to cypress-containing habitats in the Coastal Plain, including the Fall-line Sandhills, but not recorded in stands of cypress located above the fall-line along the Tar River

FLIGHT COMMENT: Flies from early spring to summer, with most records in June. Too little data are currently available to determine whether there are separate flights in North Carolina

HABITAT: All of our records come from cypress-containing habitats, but range from Cypress Savannas, Non-riverine Swamp Forests, Tidal Cypress-gum Swamps, and riverine Cypress-Gum Swamp Forests. The majority of our records come from non-riverine sites, however, and we have none from sites in deeply flooded swamps, in contrast to *Iridopsis pergracilis*, for which we have a number of records from such sites. This may indicate that *cypressaria* may be less adapted to frequent or prolonged periods of flooding than *pergracilis*, but more needs to be learned about its developmental stages before the full story can be known.

FOOD: Presumed to feed on cypress (*Taxodium* spp.) based on the habitats where it has been recorded. In North Carolina, it has been found in areas where either Bald Cypress (*T. distichum*) or Pond Cypress (*T. ascendens*) were present but not both, suggesting that both species could be used. On the other hand, other trees commonly found in association with cypresses -- e.g., Swamp Blackgum (*Nyssa biflora*) or Water Tupelo (*N. aquatica*) -- do not occur at all sites where *I. cypressaria* has been observed, suggesting that they are not likely used as host plants.

OBSERVATION_METHODS: Comes well to blacklights, sometimes abundantly

NATURAL HERITAGE PROGRAM RANKS: GU S2S3

STATE PROTECTION: Listed as Significantly Rare by the Natural Heritage Program. That designation, however, does not confer any legal protection, although permits are required to collect it on state parks and other public lands.

COMMENTS: Although this species has been known to be locally abundant since it was first described, it has also been considered to be very sparsely distributed throughout its range, with many areas of apparently suitable habitat unoccupied. This contrasts markedly with other cypress-feeding species, which are found in the majority of cypress habitats that we have sampled, or, in the case of *Macaria aequiferaria*, in nearly every sample we have taken in these habitats. In North Carolina, we have found *Iridopsis cypressaria* in only 10 out of 56 cypress-containing sites; only *Acronicta perblanda*, *Lithophane abita*, and *Tolype minta* are represented at every fewer sites. As in those species, the reasons for this sparsity are unknown. Schweitzer et al. (2011) speculated that false rarity may be involved: that either due to its narrow flight period or possible confusion with *Iridopsis pergracilis*, that it has been simply undersampled. However, we do not feel that this is the case in our state. Unlike *Acronicta perblanda* or *Lithophane abita*, both of which fly early in the year, *Iridopsis cypressaria* flies primarily in June, where more of our samples -- 78 out of 326 -- have been taken in cypress-containing habitats than in any other month of the year. This species, moreover, shows no sign of being undersampled using light traps. We have also been targeting this species since close to the inception of our quantitative surveys and have dissected any specimens that we could not clearly separate from *Iridopsis pergracilis* based on external appearance. The only factor we have noted that might explain its scarcity is its greater association with non-riverine stands of cypress than with deep riverine swamps. Those habitats have been subject to far more conversion to agriculture and silviculture than river swamps and, in the case of cypress savannas, to degradation due to the suppression of wildfire. To the extent that *I. cypressaria* is a specialist on those habitats rather than the more extensive and better connected riverine swamps, it is likely to be more vulnerable to the effects of habitat fragmentation and hence local extirpation.