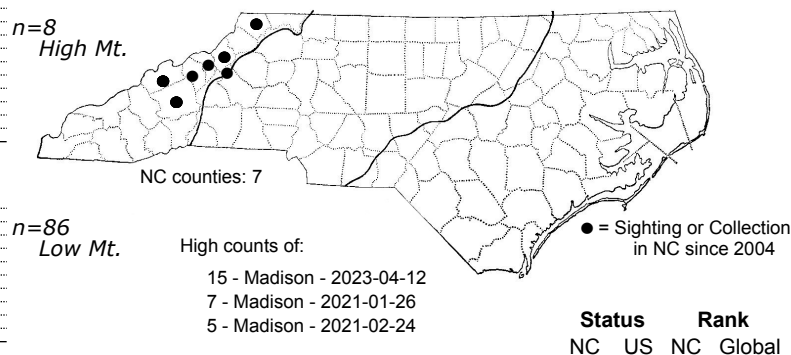
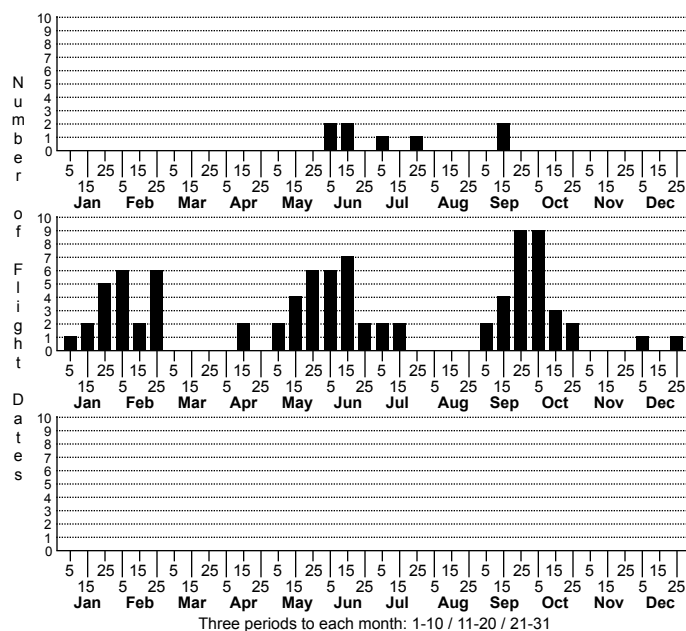


# *Agonopterix canadensis* Canadian Agonopterix Moth



FAMILY: Depressariidae SUBFAMILY: Depressariinae TRIBE: [Depressariini]

TAXONOMIC COMMENTS: *Agonopterix* is a large holarctic genus with more than 125 species, with most occurring in the Palearctic Region. Currently, there are 47 recognized species in North America. Our species are largely confined to the western mountains.

FIELD GUIDE DESCRIPTIONS: Beadle and Leckie (2012)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Clarke, 1941

TECHNICAL DESCRIPTION, IMMATURE STAGES: Clarke (1933)

ID COMMENTS: The following description is based primarily on that of Clarke (1941). The labial palp is pale ochreous-white and the second segment is evenly sprinkled with blackish fuscous exteriorly. The third segment has a black tip and a broad black subbasal and subapical annulus. The antenna is fuscous with indistinct black annulations. The head and thorax are pale yellowish gray and the face creamy white. The ground color of the forewing varies from pale yellowish gray to more fuscous. The thorax and base of the wing is slightly lighter than the forewing ground color and forms a curved band that extends to the costa before grading into a series of alternating light and dark blotches. These extend along the costa to the termen where they are reduced in size. A small black spot is present at the base of the wing, and a rapidly fading blackish-fuscous shade adjoins the light basal band. The remainder of the forewing ground is sprinkled with black specks. There are three well-developed black discal spots, including a pair of oblique spots at about one-third and a third spot at the end of the cell. A blackish to blackish-fuscous blotch occurs just posterior to the oblique pair of discal spots and somewhat more costally. The hindwing is light fuscous, and the legs are ochreous-white and mottled with blackish fuscous except at the joints. This species is best distinguished from our other *Agonopterix* species by the three black discal spots and the associated blackish blotch near the mid-wing, the basal band that terminates near the costa, and the narrow blackish-fuscous shading that adjoins the light basal band. *Agonopterix senicionella* is very similar, but has a light tan ground color, larger and more diffuse dark discal spots, and blackish dusting on the terminal half of the wings on fresh specimens.

DISTRIBUTION: *Agonopterix canadensis* is widely distributed across much of southern Canada and the northern and north-central United States. Populations in the west tend to follow the major mountain ranges southward to Colorado and central California. In the eastern US the range extend southward along the Appalachians to western North Carolina. As of 2020, our records are from both the lower and higher elevations in the mountains.

FLIGHT COMMENT: Adults have been collected during almost every month of the year and the flight season varies given the large geographic range of this species. Local populations are thought to be univoltine in many areas, with the overwintering adults breeding shortly after the spring warm-up. In North Carolina, local populations typically have three seasonal peaks. One occurs in January and February and reflects overwintering adults. Based on records for larvae in March and April, breeding appears to first occur in February, with the adults emerging around May through July. A second occurs in May through July and presumably reflects adults emerging from the first brood of larvae. A third emergence occurs in September and early October and appears to be adults from a second brood. These presumably overwinter and breed the following February. The overwintering adults are often active during bouts of warm winter weather.

HABITAT: The habitats and host plants are poorly documented for eastern populations. Many of our records are from semi-wooded residential neighborhoods and other sites with a mixture of forests and edge habitat.

FOOD: This species is polyphagous, but the hosts that are used in the eastern US are poorly documented. Records from Canada (Robinson et al., 2010) include Paper Birch (*Betula papyrifera*), Balsam Poplar (*Populus balsamifera*), Quaking Aspen (*P. tremuloides*), a willow (*Salix* sp.), an undetermined species of *Malus*, and Burdock (*Arctium*). Clarke (1933) found larvae on Tall Ragwort (*Senecio serra*) in Washington State. Jim Petranka found the larvae feeding on the flower buds of Golden Ragwort (*Packera aurea*) at three sites in Madison County.

OBSERVATION\_METHODS: The adults are attracted to lights.

NATURAL HERITAGE PROGRAM RANKS: GNR SU

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

COMMENTS: Populations appear to be restricted to the mountains in North Carolina, where they are sometimes locally common. The southern Appalachians appear to be at the southern limit of this species range and more information is needed on its distribution and abundance before we can accurately assess its conservation status.