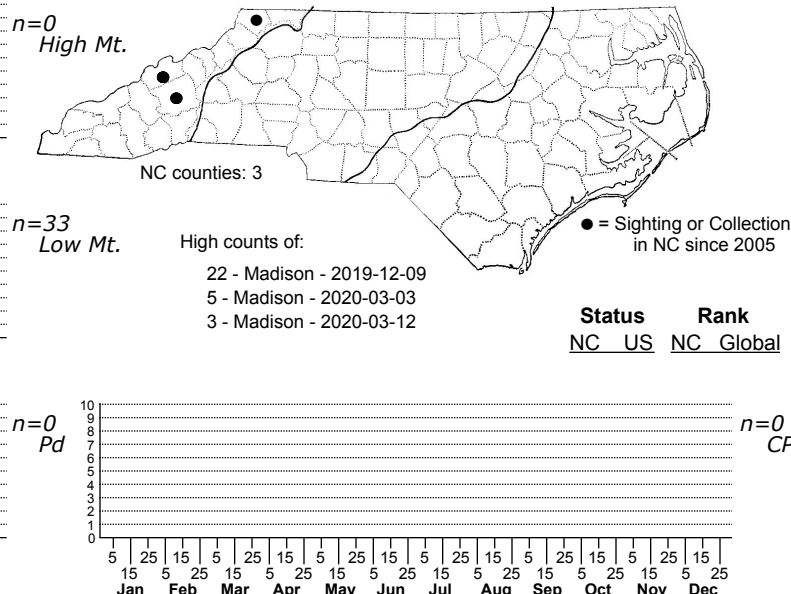
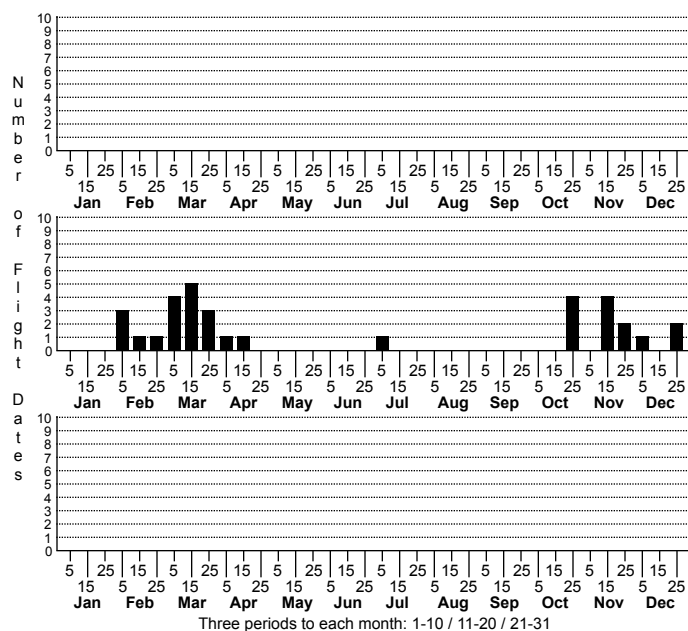


# *Agonopterix clemensella* Clemens' Agonopterix



FAMILY: Depressariidae SUBFAMILY: Depressariinae TRIBE:

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:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Clemens, 1876; Clarke 1941.

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: The following is based on descriptions by Clemens (1876), Clarke (1941), and Hodges (1974). The palps, head and antennae are brown to reddish brown. The labial palp is yellowish white with the second segment irrorated with fuscous exteriorly, and with a strong pink suffusion in the brush. The third segment has two black bands, including a relatively narrow one at the base and a broad one just below the apex. The forewing ground color varies from brown to reddish gray or reddish brown and is flecked with scattered yellowish white scales and fine dark spots that are more concentrated on the posterior half of the wing. The thorax and base of the forewing have an admixture of ashy gray and brownish scales that produce a light diffuse band behind the head that extends a short distance along the costa. Immediately adjoining this is a region of dark scales that quickly fade posteriorly. There are four small white discal spots on or near the cell. The posterior two (discal spots 'c' and 'd' of Forbes, 1923) are the largest, while the anterior two are sometimes masked by darker scales along their margins and are barely visible. The spots are aligned in a straight line, except for the most anterior spot (discal spot 'a') that is displaced slightly towards the costa. The costa and termen are blotched with alternating fuscous and yellowish-white spots.

DISTRIBUTION: *Agonopterix clemensella* is found in eastern North America, including many areas in southern Canada from Prince Edward Island west to Manitoba. In the US the range extends from the northeastern states westward to Minnesota. Farther south it is mostly found west of the Appalachians, including in Oklahoma, Texas, and Mississippi. As of 2020, all of our records are from lower elevations in the mountains. The North Carolina populations appear to be disjunct from the main range to the north and west.

FLIGHT COMMENT: The seasonal activity of adults tends to be bimodal. The adults overwinter and are sometimes active during extended bouts of warm winter weather. The main breeding bout occurs in late winter or spring. This is followed by a period of reduced activity in the summer, and renewed activity in late summer or early fall. It is uncertain if the latter reflects a second breeding bout or not. In North Carolina most adults appear at lights in February and March, then again from October through December.

HABITAT: The larvae feed on a wide variety of species in the carrot family that inhabit an equally diverse array of habitats. Some of the hosts are found in forested settings, while other prefer fields, roadsides, and other abandoned agricultural lands. The habitats range from semiaquatic to mesic or slightly drier conditions.

FOOD: The larvae are polyphagous and feed on species in the carrot family (Apiaceae). Berenbaum (1982) lists the following hosts: Bishop's Goutweed (*Aegopodium podagraria*), Purple-stem Angelica (*Angelica atropurpurea*), Celery (*Apium graveolens*), Spotted Water-hemlock (*Cicuta maculata*), Canadian Honewort (*Cryptotaenia canadensis*), Queen-Anne's-Lace (*Daucus carota*), Giant Hogweed (*Heracleum mantegazzianum*), Cow-parsnip (*H. maximum*), Longstyle Sweet-cicely (*Osmorhiza longistylis*), Wild Parsnip (*Pastinaca sativa*), Clustered Black-snakeroot (*Sanicula odorata*), Hemlock Water-parsnip (*Sium suave*), Yellow Pimpernel (*Taenidia integerrima*), Heartleaf Golden-Alexanders (*Zizia aptera*), and Common Golden-Alexanders (*Z. aurea*).

OBSERVATION\_METHODS: The adults occasionally visit UV lights.

NATURAL HERITAGE PROGRAM RANKS: GNR SU

STATE PROTECTION:

COMMENTS: As of 2020, we have only four site records that are all from the lower mountains. This is surprising given that the hosts of this polyphagous species occur throughout North Carolina.