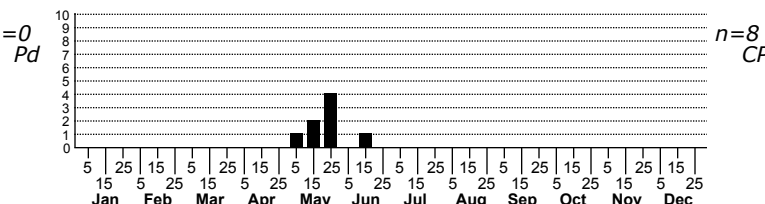
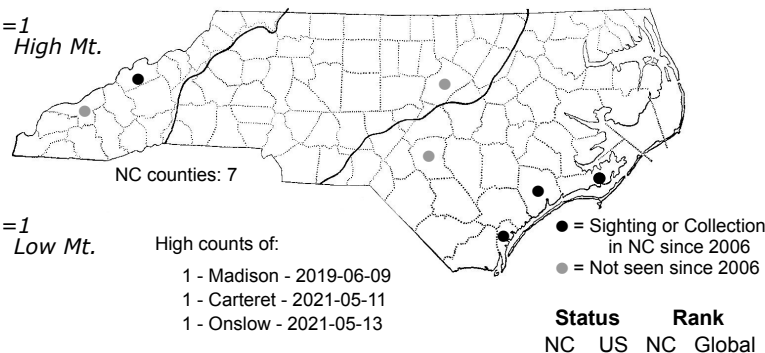
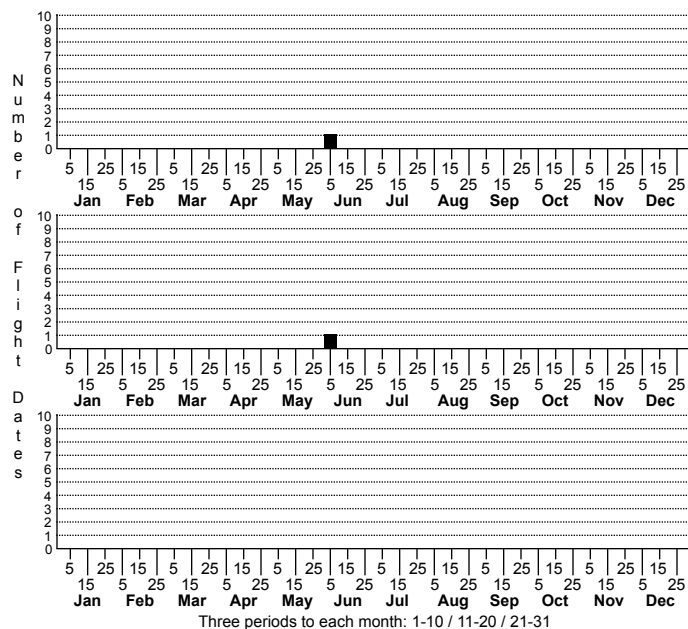


Archips argyrospila Fruit-tree Leafroller Moth



FAMILY: Tortricidae SUBFAMILY: Tortricinae TRIBE: Archipini

TAXONOMIC COMMENTS: *Archips argyrospila* is widely distributed across North America and may comprise a species complex. Individuals exhibit substantial variation in appearance at different spatial scales. Although a confusing array of pheromone and host types have been documented across the range (e.g., Goyer et al., 1995), the genitalia are essentially identical throughout the range (Kruse and Sperling, 2001). Two western groups were split off as separate species, but later synonymized by Powell (1964) after a careful morphological analysis. Kruse and Sperling (2001) conducted a molecular study and found a West Coast group that constitutes a separate clade from specimens in the remainder of the range. They elected to not recognize the West Coast form as a separate species because it is not consistently diagnosable by nonmolecular means.

FIELD GUIDE DESCRIPTIONS: Covell (1984); Beadle and Leckie (2012)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Powell and Opler (2009)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Chapman and Lienk (1971)

ID COMMENTS: Adults vary substantially in coloration and patterning across the range. The head, palps, and antenna are brown to rusty brown. The forewing is usually mottled to varying degrees with light brown, rusty-brown or orange. Many specimens -- particularly males -- have a dark brown to reddish brown, posteriorly oblique, median band that extends from the middle of the costa towards the subterminal area. A similar subapical costal mark is often evident that can vary from being a costal patch to a more extensive irregular band that extends to or nearly to the tornus. Two white, yellowish, or cream-colored squares are present on the costa near the middle, and on either side of the median band. The hindwing is gray with a paler fringe, and in some specimens may be white or partially white.

DISTRIBUTION: *Archips argyrospila* is broadly distributed across the US except in arid regions. It is also found in much of southern Canada from British Columbia eastward to Nova Scotia and Prince Edward Island. In the US the range extends from Maine westward across the northernmost tier of states to Washington State, and southward to southern California, Colorado, southern Texas and southern Florida. This species occurs statewide in North Carolina.

FLIGHT COMMENT: The adults have been observed from March through November, with the peak flight in most areas of the range occurring from May to July. Populations in North Carolina and elsewhere are univoltine. As of 2023, our records are from early May through early June.

HABITAT: Due to its polyphagous habits, this species occurs in a variety of habitats. Large populations are common in either maintained or abandoned fruit orchards where they can be significant pests. Other habitats in the eastern US include wetlands, bottomland and mesic deciduous forests, woodland borders, and residential neighborhoods. Specimens in North Carolina have been found in habitats ranging from maritime habitats on a barrier island to mesic forests in the Blue Ridge Mountains.

FOOD: The larvae are highly polyphagous (Chapman and Lienk, 1971; Freeman, 1958; MacKay, 1962a; Prentice, 1966; Heppner, 2007; Baker, 1972; Wagner et al., 1995; Robinson et al., 2010). They feed on both commercial fruit crops such as apples, pears, cherries, and peaches as well as numerous species of native plants. In many cases, the documented hosts may reflect spillover to neighboring species following outbreaks on the primary hosts. Plant genera that are used as hosts include maple (*Acer*), buckeye (*Aesculus*), *Allium*, indigo-bush (*Amorpha*), birch (*Betula*), hornbeam (*Carpinus*), hickory (*Carya*), New Jersey Tea (*Ceanothus*), redbud (*Cercis*), water-hemlock (*Cicuta*), *Citrus*, sweet-fern (*Comptonia*), dogwood (*Cornus*), hawthorn (*Crataegus*), quince (*Cydonia*), olive (*Elaeagnus*), ash (*Fraxinus*), walnut (*Juglans*), apple (*Malus*), *Medicago*, sweet-clover (*Melilotus*), *Myrica*, sycamore (*Platanus*), poplar (*Populus*), cherry (*Prunus*), pear (*Pyrus*), oak (*Quercus*), *Rhododendron*, sumac (*Rhus*), currant (*Ribes*), locust (*Robinia*), rose (*Rosa*), blackberry (*Rubus*), willow (*Salix*), *Sassafras*, meadowsweet (*Spiraea*), basswood (*Tilia*), cypress (*Taxodium*), *Toxicodendron*, elm (*Ulmus*), blueberry (*Vaccinium*), *Viburnum*, and grape (*Vitis*). Chapman and Lienk (1971) suggested that the original hosts in the Northeast were various species of oaks, hawthorns, and birches prior to the introduction of apples and other fruit crops to North America. We do not have any feeding records in North Carolina.

OBSERVATION METHODS: The adults are attracted to lights and pheromone traps. The larvae can be found on apples and other hosts, but may require rearing to identify to species.

NATURAL HERITAGE PROGRAM RANKS: GNR [S3-S4]

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

COMMENTS: