Argyrotaenia tabulana Jack Pine Tube Moth



FAMILY: Tortricidae SUBFAMILY: Tortricinae TRIBE: Archipini TAXONOMIC_COMMENTS: The genus <i>Argyrotaenia</i> contains approximately 100 described species, with most occurring in Nearctic and Neotropical regions. Thirty-six species are currently recognized in North America.

FIELD GUIDE DESCRIPTIONS: Leckie and Beadle (2018) ONLINE PHOTOS: TECHNICAL DESCRIPTION, ADULTS: Freeman (1960) TECHNICAL DESCRIPTION, IMMATURE STAGES: Freeman (1960); Maier (2004)

ID COMMENTS: The following description is based in part on that of Freeman (1960). The head, labial palp, and thorax are light brown to reddish-orange. The forewing patterning and coloration are variable, and the following description summarizes the general trends. The forewing ground color varies from pale buff to light pink, purplish brown, or orange. It is overlaid with darker reddish-brown lines and bands. The basal patch varies from reddish-brown to light pinkish purple and typically has two darker reddish-brown, angulated lines. These can vary in size and shape, are often fragmented, and may even fork. A dark, oblique median band is present that is typically lighter in the middle. The middle portion often has a light purplish to pinkish-purple cast, and is bordered on both edges with darker, irregular, reddish-brown coloration. Both the posterior margin of the basal patch, and the anterior and posterior margins of the central band, are finely lined with white. A large costal spot is present beyond the median band that is reddish-brown, with darker inner and outer edges. A matching elongated spot is found towards the tornus. These are often connected to form a band. Beyond the costal spot, there are one or two short, dark, reddish-brown lines that extend inward from the costa. The forewing fringe is light reddish brown, and the hindwing is smoky and becomes lighter towards the base. The hindwing fringe is light with a dark basal line, and becoming tawny towards the apex. This species is somewhat similar to <i>A. pinatubana</i>, but the latter is more drab overall and lacks reddish-brown bands that are lined with darker borders. In addition, both the posterior edge of the basal patch and the anterior edge of the median band tend to be more straight-edged relative to those of <i>A. tabulana</i>.

DISTRIBUTION: <i>Argyrotaenia tabulana</i> is found in North America, including much of southern Canada from British Columbia eastward to Nova Scotia. It occurs in Montana, Wyoming, and Washington (Freeman, 1960), and throughout much of the eastern US. In the eastern US the range extends from Maine southward to Florida and westward to eastern Texas, eastern Oklahoma, Illinois, and Michigan. This species occurs statewide in North Carolina.

FLIGHT COMMENT: The adults have to observed from January through October in areas outside of North Carolina, with the first brood occurring in March and April. Populations in Canada appear to be single brooded, while those farther south have two or more broods per year. As of 2021, we have records from early February through mid-October. Local populations in North Carolina appear to have two or three broods per year.

HABITAT: This species depends on yellow pines for successful reproduction and can be found in pine or mixed pine-hardwood stands.

FOOD: The Jack Pine Tube Moth has been reported to use a variety of conifers in Canada (Prentice, 1966; Robinson et al., 2010), including firs (<i>Abies</i> spp.), a larch (<i>Larix</i> sp.), spruces (<i>Picea</i> spp.), pines (<i>Pinus</i> spp.), Douglas Fir (<i>Pseudotsuga menziesii</i> i>) and Western Hemlock (<i>Tsuga heterophylla</i>). In the eastern US it appears to feed only on yellow pines, including Pitch Pine (<i>Pinus rigida</i>) and Loblolly Pine (<i>R. taeda</i>) (Obraztsov, 1961; Maier et al., 2004; Heppner, 2007). In North Carolina, the only documented host is Loblolly Pine. Other species of yellow pine such as Pitch Pine are presumably used in the mountains where Loblolly Pine does not occur.

OBSERVATION_METHODS: The adults come to lights and the pine tubes with larvae can be found on pines.

NATURAL HERITAGE PROGRAM RANKS: GNR S4S5

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

COMMENTS: This species appears to be secure within the state where it is widespread and uses pines as hosts.

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