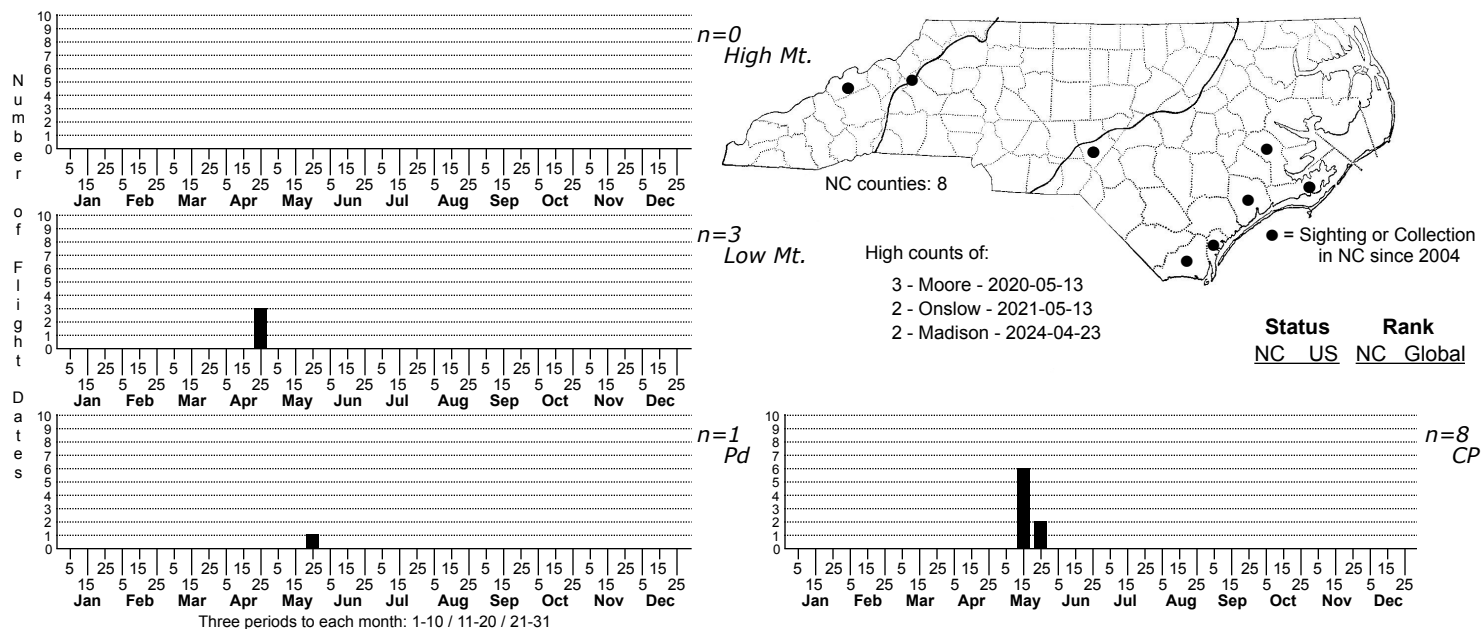


Choristoneura pinus Jack Pine Budworm Moth



FAMILY: Tortricidae SUBFAMILY: Tortricinae TRIBE: Archipini

TAXONOMIC_COMMENTS: *Choristoneura pinus* is a member of a species complex that includes seven or eight closely related species and numerous biotypes. They all have nearly identical life histories and are best identified by their range and host plants (Lumley and Sperling 2010, 2011; Nealis, 2015).

FIELD GUIDE DESCRIPTIONS: Beadle and Leckie (2012)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Freeman (1953)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Baker (1962)

ID COMMENTS: The head, palps, antennae, and thorax vary from light brown to reddish-brown. The forewing patterning and coloration is variable, but typically consists of a mosaic of small silvery-brown to reddish-silvery patches that are surrounded by dark brown or dark red striae that produce a reticulated pattern. The costa is marked similar to the overall wing patterns except for two or three whitish streaks or paired strigulae that occur at around one-fourth, just beyond the middle, and before the apex, with the center mark typically the most prominent. The hindwing is brown with a slightly paler fringe that has a thin brown basal line. Specimens from the southern portion of the range, including North Carolina, tend to be redder and have the white costal marks reduced relative to those from the northern US and Canada.

DISTRIBUTION: *Choristoneura pinus* is broadly distributed in North America and can be found in most regions of southern Canada from British Columbia to Nova Scotia, in the eastern US, and in the Pacific Northwest. In the eastern US the range extends from Maine to northern Florida and westward to central Texas, Louisiana, Mississippi, Kentucky, Illinois, Wisconsin, and northeastern North Dakota. As of 2023, we have records from the southern Coastal Plain and eastern Piedmont.

FLIGHT COMMENT: The adults fly from March through August in different areas of the range, with a seasonal peak in most areas typically in June and July. As of 2023, our records are all from May.

HABITAT: This species is generally associated with pine forests, particularly Jack Pine stands in the northern portion of the range. Most of our records are from coastal pine forests and pine savannas.

FOOD: The larvae feed on a number of different species of pines as well as other conifers (Brown et al., 2008; Eiseman, 2022; Freeman, 1958; Heppner, 2007; Prentice, 1966). The known hosts include Balsam Fir (*Abies balsamea*), larches (*Larix*), White Spruce (*Picea glauca*), Black Spruce (*P. mariana*), Jack Pine (*Pinus banksiana*), Red Pine (*P. resinosa*), Pitch Pine (*P. rigida*), Eastern White Pine (*P. strobus*), Scots Pine (*P. sylvestris*) and Virginia Pine (*P. virginiana*). Jack Pine is the most important host in the north (Prentice, 1966), while Virginia Pine, Pitch Pine, and other pines are used outside of the range of Jack Pine. Many of the species listed above are secondarily consumed during outbreaks when they are in close proximity to Jack Pine stands. Host use has not been documented in North Carolina, but Pocosin Pine is a likely candidate along the coast given that it is very closely related to Pitch Pine.

OBSERVATION_METHODS: The adults are attracted to lights and the larvae can be found feeding on pine catkins and pine needles.

NATURAL HERITAGE PROGRAM RANKS: GNR S2S3

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 uncommon within the state with only seven site records as of 2023. We need additional information on its host use, distribution, and abundance before we can fully assess its conservation status.