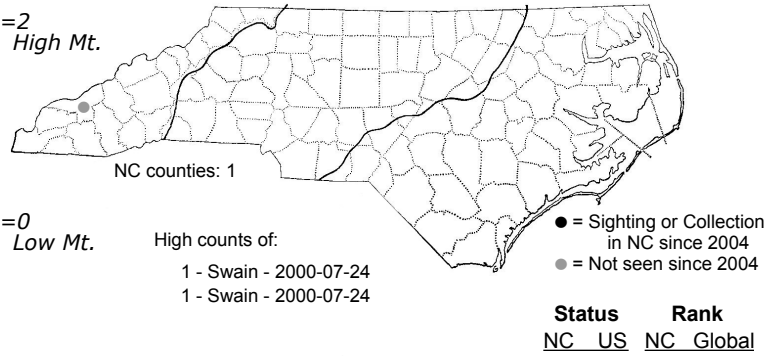
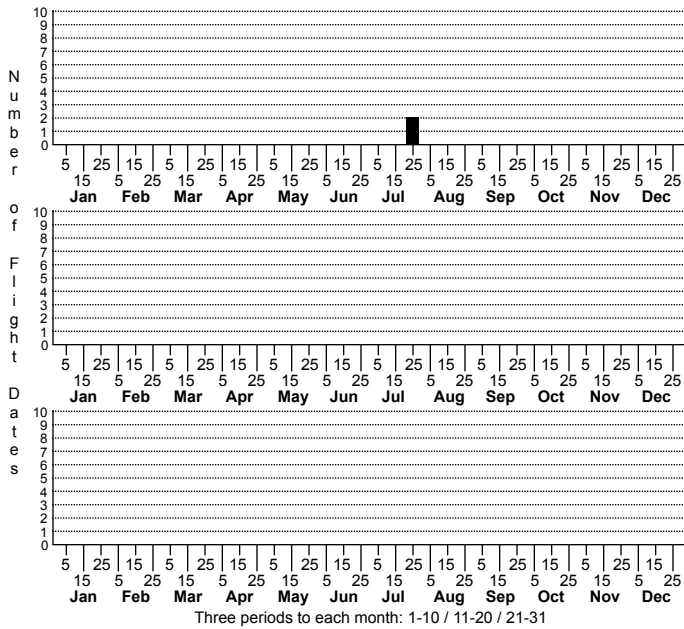


*Arctia parthenos* St. Lawrence Tiger Moth



FAMILY: Erebiidae SUBFAMILY: Arctiinae TRIBE: Arctiini

TAXONOMIC\_COMMENTS: One of four members of this genus that occurs in North America (Lafontaine and Schmidt, 2010) and the only one in our area

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

ONLINE PHOTOS: BOLD, MPG, Bugguide, BAMONA

TECHNICAL DESCRIPTION, ADULTS: Forbes (1960)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Forbes (1960); Wagner (2005)

ID COMMENTS: A large, spectacular Tiger Moth with strongly contrasting colors and patterns on the fore- and hindwings: the forewings are brown and variably spotted with pale yellow or cream; the hindwings are usually black over most of the basal half and variably marked with orange-yellow and black bands in the outer half. The antennae are black, the head and legs crimson, the collar and tegulae yellow, the thorax dark brown shading into reddish orange posteriorly, the abdomen dark brown to black with a yellowish-to reddish-orange tip. Although the pattern is distinctive, *P. parthenos* is similar in size, pattern, and coloration to the equally spectacular *Arctia caja*, which occupies similar high elevation habitats in the Southern Appalachians. In *A. caja*, the antennae are white; the spots on the forewing are usually connected to one another, forming a network; the abdomen is orange; and the hindwings possess large dark blue-centered spots on an orange background. Individuals of both species may have greatly reduced pale markings on the forewings and may be difficult to distinguish based on the forewing pattern alone; antennal color and/or hindwing and abdominal markings must be used instead.

DISTRIBUTION: Known in North Carolina solely from the Great Smoky Mountains National Park

FLIGHT COMMENT: Single-brooded

HABITAT: All North Carolina records come from elevations above 5,000'. Most come from Spruce-fir Forests or Northern Hardwoods but there are also a few from high elevation balds.

FOOD: Polyphagous, feeding on a wide range of herbaceous and woody plants (Wagner, 2005). Covell (1984) specifically lists Alder (*Alnus* sp.), Birch (*Betula* sp.), and Willow (*Salix* sp.).

OBSERVATION\_METHODS: Records from the GSMNP ATBI appear to come mainly from blacklight sampling, but not enough is known to be sure how well; like other Arctiini, *Platarctia* probably does not come at all to bait

NATURAL HERITAGE PROGRAM RANKS: G5 S1S2

STATE PROTECTION: Listed as Significantly Rare by the Natural Heritage Program. That designation, however, does not confer any legal protection, although permits are required to collect it on state parks and other public lands.

COMMENTS: This is one of our rarest species, with only 17 records since 1945, all from the Great Smoky Mountains National Park. Along with the Spruce-fir Moss Spider and several other species associated with high elevation habitats, this species appears to be one of our most vulnerable, although in this case to extirpation from the state rather than complete extinction. Die-off of Fraser Fir due to the effects of the Balsam Woolly Adelgid and acid precipitation has already drastically altered the composition and structure of the Spruce-fir Forests and global climate change is likely to make members of these ecosystems even more at risk to the effects of higher temperatures, increased droughts and fires, and invasion by still more exotic species. If *Platarctia* is truly confined to just the high ridges of the Great Smokies, once gone this species may be lost essentially forever from the Southern Appalachians, a refuge where it had previously been able to hang on since the end of the Ice Age.