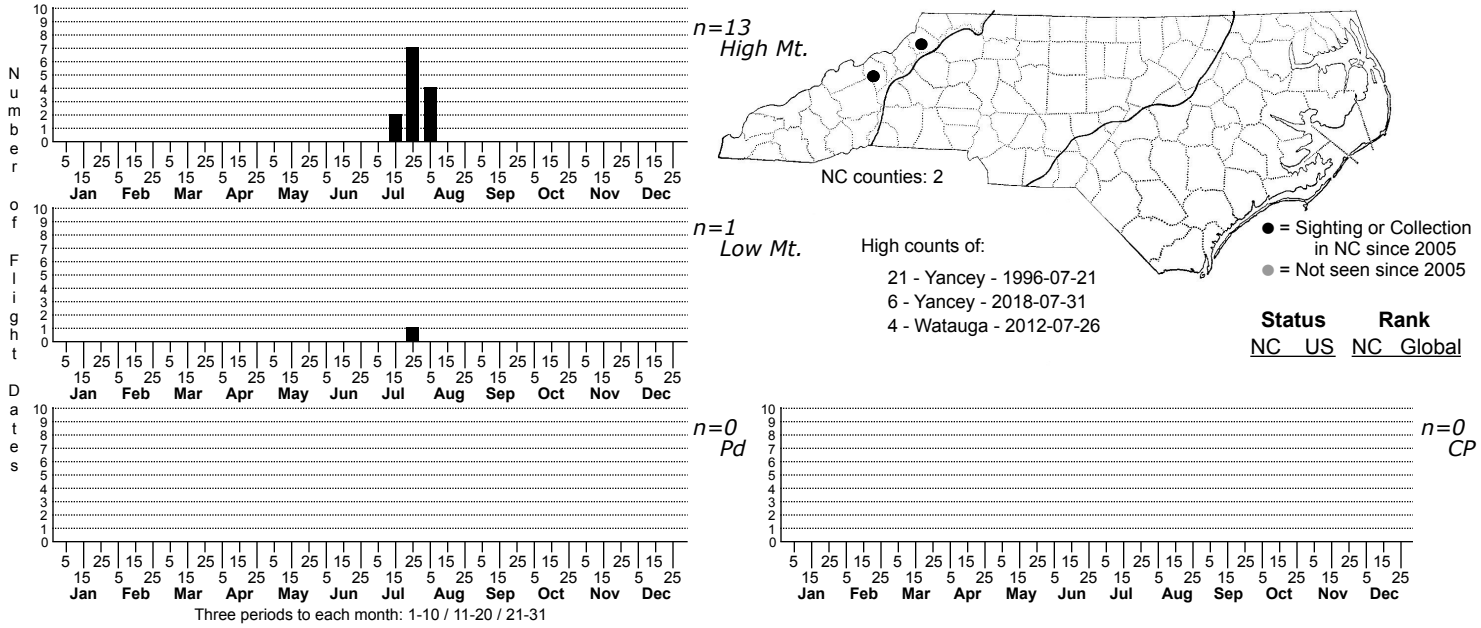
Arctia caja Great Tiger Moth



FAMILY: Erebidae 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. The species occurs circumboreally at high latitudes; the subspecies listed for North America is A. caja americana (Forbes, 1960).

FIELD GUIDE DESCRIPTIONS: Covell (1984); Beadle and Leckie (2012)
ONLINE PHOTOS:
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 marked with a network of white or cream spots and interconnecting lines; the hindwings are orange-yellow with two primary rows of large black spots with dark blue centers. The antennae are white, the head is crimson, the thorax is cinnamon brown, and the abdomen is primarily orange with a dorsal row of black spots. Although the pattern is distinctive, A. caja is similar in size, pattern, and coloration to the equally spectacular Platarctia parthenos, which occupies similar high elevation habitats in the Southern Appalachians. In Platarctia, the antennae are black; the abdomen is mainly black with an orange tip; the spots on the forewing are typically isolated rather than connected; and the pattern on the hindwing consists of broad areas of black with orange bands rather than a primarily orange ground color and dark spots. 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: Recorded in North Carolina only at Mount Mitchell and the vicinity of Elk Knob. Found in Virginia on White Top Mountain (S. Roble, pers. comm. to S. Hall).

FLIGHT COMMENT: Single brooded, with adults flying primarily in mid-July

HABITAT: North Carolina records are all from Northern Hardwoods and perhaps Spruce-fir Forests (Mt. Mitchell) from elevations around 4,000' and higher.

FOOD: Larvae are polyphagous, feeding on a wide range of herbaceous and woody plants (Covell, 1984; Wagner, 2005). Covell specifically lists alder (Alnus), poplar (Populus), willow (Salix), cherry (Prunus), and apple (Malus). Other species listed by Robinson et al. (2010) included Stinging Nettle (Urtica spp.), Bracken (Pteridium aquilinum), and several species of composites and other forbs. We do not have any feeding records in North Carolina.

OBSERVATION_METHODS: Comes moderately well to blacklights; like other Arctiini, Arctia probably does not come at all to bait

NATURAL HERITAGE PROGRAM RANKS: G5 S1

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: One of our rarest moths and among the most vulnerable to the effects of global climate change: higher temperatures, increased droughts and fires, and invasion by exotic species are all likely to have impacts on this and other Pleistocene relicts that are confined to just a small number of high elevation "mountain islands" in the Southern Appalachians.