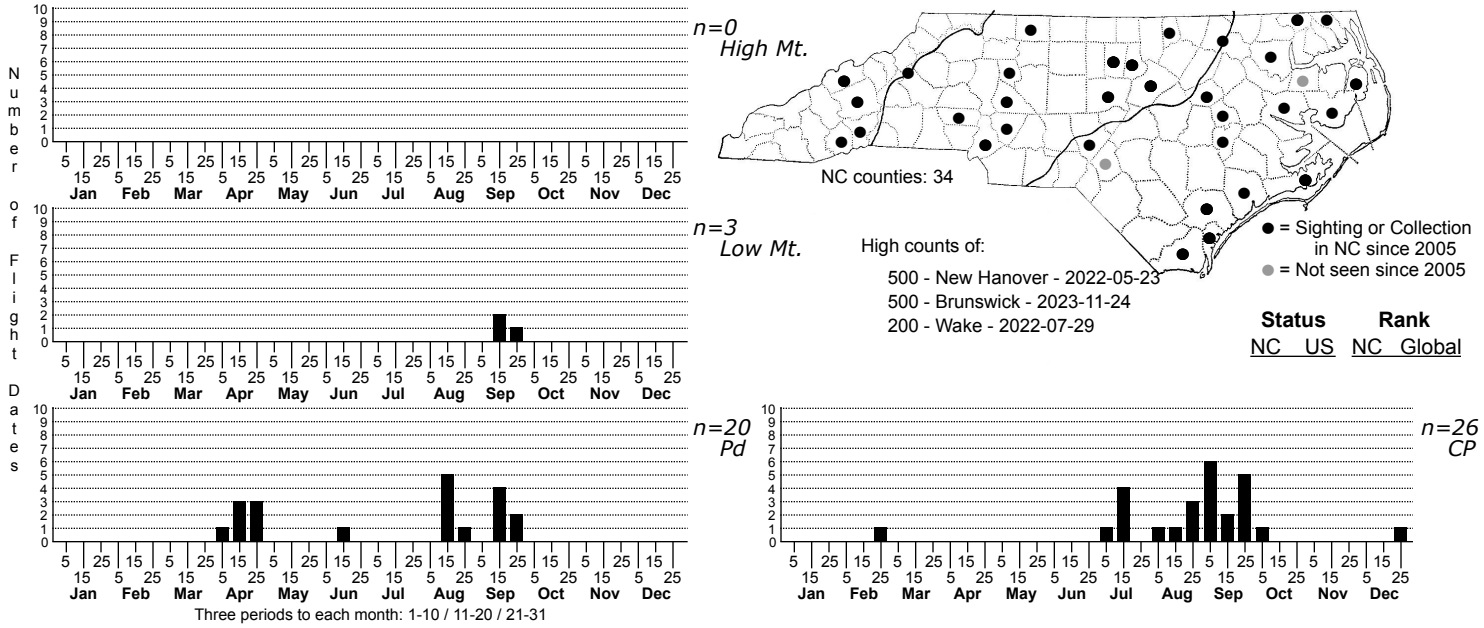
Thyridopteryx ephemeraeformis Evergreen Bagworm Moth



FAMILY: Psychidae SUBFAMILY: Oiketicinae TRIBE: [Oiketicini]
TAXONOMIC_COMMENTS: The family Psychidae contains as many as 1,350 species that are found worldwide. The females of many species are flightless, and the larvae of all species live in constructed cases or bags, hence the name bagworms. There are 28 species in North America, including five species of Thyridopteryx.

FIELD GUIDE DESCRIPTIONS: Covell (1984)
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: Davis (1964)
TECHNICAL DESCRIPTION, IMMATURE STAGES: Peterson, 1969

ID COMMENTS: This species is difficult to confuse with any other species. The body of the male has a woolly appearance from long, dark, dense scales that cover the head, thorax, and abdomen. Those on the abdomen often wear away to varying degrees with time. The antenna is broadly lanceolate with a broad base that tapers to a fine tip. Both the forewing and hindwing are almost devoid of scales except for concentrations along the costal margin and the anal area (Davis, 1964). The exposed wing membrane is transparent. The wingless females live in distinctive bags that are 30-50 mm long and 10-15 mm in diameter, with the greatest diameter at or near the middle. The bag consists of a silk lining that is covered with plant material. The ornamentation is variable depending on the food plant, but the bag never has an external sheet of silk like certain other psychids (Davis, 1964). When pieces of stems are incorporated, they are applied longitudinally and usually are of moderate length (15 mm or less in most cases). On cedars, the cases are frequently adorned with the fruit of the host.

DISTRIBUTION: Thyridopteryx ephemeraeformis occurs in the eastern half of North America southward to northern South America. In North America, it occurs in Ontario and throughout most of the eastern and central US. It occurs statewide In North Carolina, but appears to be rare or absent from the higher elevations in the mountains.

FLIGHT COMMENT: Local populations are univoltine, with mating occurring in late summer or early fall. Most of our records for males are from July through early October.

HABITAT: The larvae are polyphagous, but are most commonly found on evergreen conifers, particularly Eastern Red Cedar and Southern Red Cedar. Eastern Red Cedar is a successional species that is common in abandoned fields, and along fence rows and roadways. Southern Red Cedar is found along the coast where it grows in maritime forests as well as more open habitats such as dunes and shell middens. These species generally prefer areas with high soil pH.

FOOD: The larvae are extremely polyphagous and are known to feed on members of over 50 families of plants, including numerous deciduous and evergreen trees and shrubs (Rhainds et al., 2009). They show a strong preference for evergreen conifers, including Eastern Red Cedar (Juniperus virginiana), Southern Red Cedar (J. salicicola), and ornamentals such as Leyland Cypress (Cupressus × leylandii) and Arborvitae (Thuja spp.). In North Carolina, larval bags have been recorded on countless different plants, with confirmed feeding records from Eastern Red Cedar and Box-elder (Acer negundo).

OBSERVATION_METHODS: The males occasionally visit lights, and the bags are easily spotted on the host plants such as Eastern Red Cedar and Southern Red Cedar.

NATURAL HERITAGE PROGRAM RANKS: GNR [S5]

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

COMMENTS: This species is often locally common and can become a pest on ornamentals. It appears to be secure within the state.