

American snout, *Libytheana carinenta* (Cramer) (Insecta: Lepidoptera: Nymphalidae: Libytheinae)¹

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Introduction

The American snout, *Libytheana carinenta* (Cramer), is a small, relatively dull colored butterfly that is named because of the pronounced elongation of its labial palpi into a prominent snout. The specific epithet, *carinenta*, from the Latin root “carin” presumably refers to the keel-shape of the snout.



Figure 1. Dorsal view of the wings of an adult American snout, *Libytheana carinenta* (Cramer). (Hendricks County, Indiana; June 22, 2001).

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Synonymy

Libytheana bachmanii (Kirtland) is a synonym of *Libytheana carinenta* (Cramer) (Heppner 2003).

Distribution

The American snout is found from southern and central California northeastward to Colorado and Nebraska and throughout most of the eastern U.S. It is common in northern and central Florida, but is infrequent in southern Florida. It also occurs through Central America and South America to Argentina (Minno et al. 2005, Opler et al. 2009).

Description

Adults

The wing spread of adults is 1.6 to 1.9 inches (Daniels 2003). The upper surface of the wings is blackish-brown with orange patches on the basal half of both fore and hind wings and white spots on the distal half of the forewings. The tip of the forewing is squared. The underside of the forewings is similar to the upper side except the marginal areas may be lighter. The underside of the hind wings may be mottled or smooth purplish gray or brown.

There are a number of regional varieties that were once considered to be different species but are now considered to be subspecies of *Libytheana carinenta*. The eastern subspecies is *L. c. bachmanii* (Cech and Tudor 2005).

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Figure 2. Ventral view of the wings of an adult American snout, *Libytheana carinenta* (Cramer).

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Eggs

The eggs are pale yellow with the surface sculptured with a series of vertical ridges.



Figure 3. An egg of the American snout, *Libytheana carinenta* (Cramer), on sugarberry.

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Larvae

Full grown larvae are approximately 1.0 inch in length. The head and body are green. The body has numerous small yellow dots and narrow yellow stripes on the back and sides (Minno et al. 2005). The first two thoracic segments are enlarged so that larvae appear to be hump-backed (Allen 1997, Opler and Krizek 1984). Larvae lack the prominent cephalic horns of the hackberry emperor, *Asterocampa celtis* [Boisduval & Leconte], and the tawny emperor, *Asterocampa clyton* [Boisduval & Leconte] — the other two common butterfly caterpillars on hackberries.



Figure 4. A larva of the American snout, *Libytheana carinenta* (Cramer).

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Pupae

The pupae are green with tiny white dots, a faint white line laterally on the abdomen and a prominent diagonal white line and two small points on the anterior end. The pupae are attached to a silk pad by the cremaster and hang vertically.



Figure 5. A pupa of the American snout, *Libytheana carinenta* (Cramer).

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Life Cycle and Biology

There are two generations per year throughout most of the range and three or more in Florida. Adults overwinter in the southern part of their range and repopulate more northern areas each spring. There are mass migrations northward in the West in some years with migrating butterflies numbering in the countless millions and said to darken the sky.

Males patrol in the area of the hackberry host plants to find females. Opler and Krizek (1984) state that mated pairs have only been observed at night. However, Scott (1986) states that mating appears to occur all day.

Adults feed on nectar from a wide variety of flowers (Allen 1997, Opler and Krizek 1984) with an apparent preference for white and yellow flowers (Kawahara & Dirig 2006) and also commonly sip water and minerals from mud.

Eggs are laid singly (Minno et al. 2005) or in small clusters (Cech and Tudor 2005) in the leaf axils of young shoots or less frequently on young foliage or twigs. Larvae eat young foliage. When not feeding, larvae in Brazil are reported to rest on frass chains as a defense against predators (Freitas 1999).

In Florida, larvae may be found from March through early November. Larvae, pupae, and adults are all cryptically colored. Wagner (2005) has noted that larvae resemble partially opened leaves. Adults often rest on twigs with

their dead-leaf mimic wings folded and the antennae and palpi aligned and angled down toward the twig so that they resemble the petiole of a dead leaf (Opler et al. 2009).

Hosts

The larval hosts of the American snout are hackberry trees (*Celtis spp.*) in the family Celtidaceae. The two most common hackberries in the eastern U.S. the more northern hackberry, *Celtis occidentalis* Linnaeus, and the more southern sugarberry, *Celtis laevigata* Willd., can usually be recognized by the slightly to heavily warty appearance of their trunks. More information and a key to the *Celtis* species is available at efloras.org (undated).



Figure 6. Hackberry, *Celtis occidentalis* L. (Celtidaceae), is a larval host for the American snout, *Libytheana carinenta* (Cramer).
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Figure 7. Sugarberry, *Celtis laevigata* Willd., a host of the American snout, *Libytheana carinenta* (Cramer).
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Figure 8. Warty trunk of the sugarberry, *Celtis laevigata* Willd., a host of the American snout, *Libytheana carinenta* (Cramer).
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Figure 9. Heavily warty trunk of the sugarberry, *Celtis laevigata* Willd., a host of the American snout, *Libytheana carinenta* (Cramer).
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