

GIANT BARK APHID, LONGISTIGMA CARYAE (HARRIS)

(HOMOPTERA: APHIDIDAE)<sup>1</sup>

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INTRODUCTION: This bark feeding aphid was first described by Harris (1841) as Aphis caryae from pignut hickory, Carya glabra (=porcina)(Mill.) Sweet, in Massachusetts. It is the largest aphid that occurs in the United States, and it was probably this species that was reported by Thomas (1879) from limbs of pignut hickory in Illinois. Weed (1891) described its various forms and gave a short note on its biology. Wilson (1909) described the genus Longistigma for this species because of the extremely long slender stigma which extends around the end of the wing (fig. 1).

DISTRIBUTION: L. caryae has been reported from Alabama, Arkansas, Arizona, California, Connecticut, Delaware, District of Columbia, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Utah, Virginia, and Wisconsin.

ECONOMIC IMPORTANCE: In cities during the late summer and autumn months, numerous specimens feeding on branches (fig. 2) cause large amounts of honeydew to drop on sidewalk and curb areas beneath infested trees. Sooty mold grows on the upper surface of leaves and bark that are covered with honeydew (fig. 3).

HOSTS: Carya glabra (=porcina)(Mill.) Sweet, Carya illinoensis (Wangenheim) Koch, Tilia americana Linnaeus, and Quercus spp.

SURVEY AND DETECTION: Look for sooty mold on any of the host plants. Check the bark of limbs and trunk for large dark aphids during the summer and early autumn.

DESCRIPTION: Apterous (wingless) viviparous female: body 6 mm long, abdomen 3.5 mm in diameter, antennae 3 mm long, posterior legs 9 mm long. Light to dark brown except cornicles and a few small spots on the abdomen; tips of femora, tibia and tarsi black. Cornicles very short and truncate. Rostrum extending to posterior coxae. Body, legs and antennae with long, light brown hairs. Antennal segment III equal to IV plus V; VI short, with unguis thumb-shaped.

Alate (winged) viviparous female: body 6 mm long, abdomen 3-5 mm in diameter, head to tip of folded wings 10 mm; wing expanse 18 mm, antennae 3 mm, posterior legs 11 mm. Head and thorax bluish black, antennae and cornicles black, dorsum of abdomen whitish with 2 rows of black spots on each side of the median line and a transverse series of small, black dots on each segment. Cornicles short and truncate. Tips of femora, tibia and tarsi black. Body, legs and antennae covered with long brown hairs. Wings dusky, especially toward base. Oviparous females do not differ in appearance from viviparous females.

LITERATURE CITED:

Harris, T. W. 1841. A report on the insects of Massachusetts, injurious to vegetation. (1842 Reprint: A treatise on some of the insects of New England, which are injurious to vegetation. Cambridge), 459 p.

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Thomas, C. 1879. Eighth report of the state entomologist on the noxious and beneficial insects of the State of Illinois. Third Ann. Rpt., 212 p., 47 fig.

Weed, C. M. 1891. Fifth contribution to a knowledge of certain little-known Aphididae. Insect Life 3(6):285-293, fig. 23-26, pl. 1.

Wilson, H. F. 1909. Notes on Lachnus caryae Harris under a new name. Canadian Ent. 41(11):385-387.

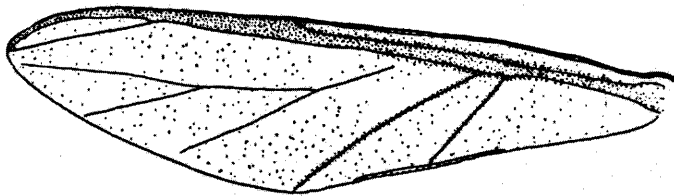


Fig. 1. Forewing of Longistigma caryae (Harris) (DPI 701850).



Fig. 2. Longistigma caryae (Harris) feeding on bark of Quercus virginiana (DPI 700555).

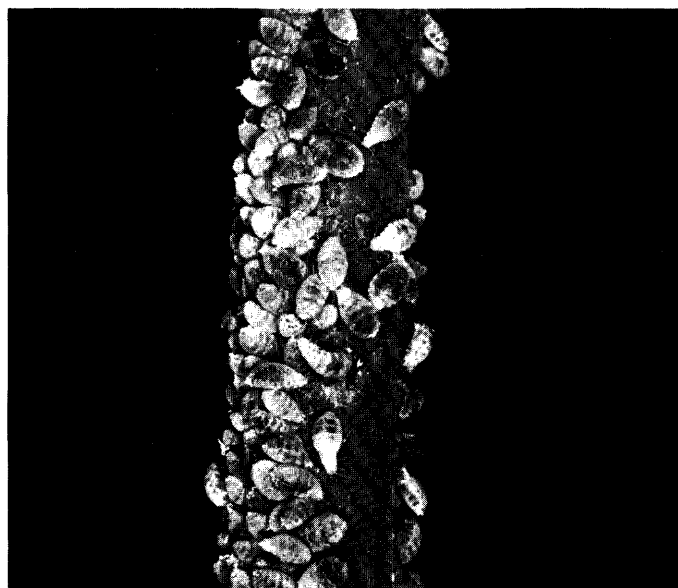


Fig. 3. Sooty mold growing on honeydew from Longistigma caryae (Harris) (DPI 680107).