

shaped like the large part of a heart. The larvæ of this genus have but three-jointed antennæ.

Callipterus Koch, 1855.¹

type, *A. juglandis* Kaltenbach.

Synonyms: *Callaphis* Walker, 1870.²

Ptychodes Buckton, 1881.³

Panaphis Kirkaldy, 1904.⁴

This species was originally described by Frisch, but as that was prior to the 10th edition of Linnæus, and as Kaltenbach was the first one to describe this species after Linnæus, the species belongs to Kaltenbach.

In 1860 Passerini made this species the type of the genus *Callipterus*, and in 1870 Walker used the same species for the type of his genus *Callaphis*. In 1881 Buckton erected for this species the genus *Ptychodes*; the name being preoccupied, Kirkaldy, in 1904, suggested the name *Panaphis*.

Characters: Antennæ shorter than the body, stout, and without antennal tubercles. Forehead broadly rounded, with the inner edges projected at the base of the antennæ. Body oblong and stout; nectaries short, stout and subconical, distal edge being nearly parallel with axis of the body. Cauda twice as long as nectaries, tip elliptical, constricted into a broad base. Anal plate divided into two parts, each division forming a broad blunt tooth-shaped piece, the two being widely separated at the top and converging at the base to form a U. Wings short and broad.

Callipterus caryæfoliæ Davis is the only American representative of this genus.

Monaphis Walker, 1870.*

type, *A. antennata* Kaltenbach.

Synonym: *Bradyaphis* Mordwilko, 1894.†

This genus was made in 1870 by Walker, and was not again referred to by later writers. Mordwilko, probably never having seen Walker's paper, used the same type species to form his genus *Bradyaphis*, which must fall as a synonym of the first. So far as known at the present time, there are no representatives of this genus in North America.

1. Die Pflanzenläuse Aphiden, p. 208.

2. The Zoologist, Vol. 5, p. 2001.

3. Monograph British Aphididæ, Vol. 3, p. 39.

4. The Entomologist, Vol. 37, p. 279.

*The Zoologist, p. 2001, 1870.

†Rab. Lab. Zool. Kab. Varch. Univ., p. 46 of separate.