

## DESCRIPTIONS OF SIX TYPHLOCYBAS FROM THE UNITED STATES

(HOMOPTERA: CICADELLIDAE)

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Five of these *Typhlocybas* belong to the *Rosae* Group and the sixth to the *Danae* Group. Unless other deposition is indicated all material is in the collection of the writer.

### *Typhlocyba cassiopeia* n. sp.

Robust, cream colored, eyes pale, vertex and pronotum yellow-tinged, scutellum white, elytra yellow semihyaline, apical cells faintly clouded, creamy white below. This species is near *T. pomaria* McAtee.

Female genital segment three times as long as preceding, only slightly produced, rounded, ovipositor black-tipped, exceeding pygofer. A pair of black spots half way from base separated by width of ovipositor. Inner male genitalia: In ventral view aedeagus shaft narrowed on outer third, lateral processes almost parallel and in front of shaft, diverging gradually, sinuate on outer half, a third longer than shaft; in lateral view, aedeagus small, curved dorsad a third of distance from base at right angles to it, shaft slender, inconspicuous, lying dorsad between a pair of heavy lateral processes which exceed it by a third; ninth segment with ventral angle subrectangular, slightly pigmented, dorsal margin rounded obtusely; outer claspers rather stout, narrowed after middle to spoon-shaped pigmented apices which diverge a little; inner claspers slender, outcurved, aciculate.

Length: Male and female,  $3\frac{1}{2}$  mm.

Male holotype, allotype and paratypes, Colorado Springs, Colo., July 19, 1938, D. J. & J. N. Knull, collectors; paratypes, Vineland Station, Ontario, W. L. Putman, collector, taken on a series of dates between July 27 and August 2, from 1938 to 1941, reared from *Prunus serotina* Ehrh. Paratypes in the Canadian National Collection, No. 5503.

### *Typhlocyba putmani* n. sp.

Yellowish white, more yellow on vertex, golden yellow below; eyes tan; elytra shining subhyaline. Related to *T. pomaria* McAtee, but spine of pygofer not as prominently falcate.

Last ventral segment in female with margin faintly sinuate, slightly emarginate over ovipositor which is black-tipped and exceeds pygofer by its width. Male genitalia: In lateral view pygofer spine protruding slightly from ventral posterior corner, sharp, heavy, dark, lying along posterior margin of pygofer, aedeagus with processes evenly curved and tapered from base to pointed apices which are directed latero-caudad, shaft hidden by a process to apex which protrudes ventrally at about one-third length of process; from ventral view, aedeagus three-pronged, shaft tapering to a fine point, a pair of lateral processes, each about a fourth longer than shaft, separated from shaft at base by about twice its width, extends roughly parallel to its entire length, becomes sinuate and turns latero-caudad at apex. Styles of usual type.

Length: Male, 4 mm.; female,  $4\frac{1}{2}$  mm.

Male holotype, allotype and paratypes, Vineland Station, Ontario, July 16, 1940, W. L. Putman, collector, from *Cornus* spp.; other paratypes with same data collected July 12 and 13, 1940. Types in Canadian National Collection, No. 5504; paratypes retained by author.

Named for W. L. Putman, who has done interesting work in rearing leafhoppers.

***Typhlocyba oneka* n. sp.**

Slender, pale yellowish white, elytra semihyaline, below cream-colored, eyes pale.

Female, last ventral segment large, concave, roundly, almost semicircularly produced on outer half, no indentation, a pair of dark points one-third distance from apex separated by more than width of ovipositor, sometimes indistinct; ovipositor exceeding pygofer by more than its width. Male genitalia: Ninth segment with posterior angle produced dorsad forming less than a right angle, margin rounded, ventral angle a little sinuate, darkened at tip, sharp, almost a right angle. Outer claspers long and slender, tapered gradually, constricted on outer third which is spatulate and curved laterad, pigmented toward apex; inner clasper hairy at base, outcurved, slender, somewhat acuminate. Aedeagus from lateral view slender, bifid at apical fifth, curved at a right angle with base about one-fourth distance from base; a pair of very delicate slender processes arises just ventrad to base, extends two-thirds length of shaft, the parts diverging slightly toward apices.

Length: Male and female,  $3\frac{1}{2}$  mm.

Male holotype, allotype and paratypes, Cranberry Lake, N. Y., July 15, 1920, from *Corylus*, Osborn & Drake, collectors. Types in the Herbert Osborn Collection at The Ohio State University.

***Typhlocyba shawneeana* n. sp.**

Slender, creamy white with translucent elytra and inner male genitalia remarkably different from any known species.

Male genitalia: Ninth segment almost square on outer margin, ventral corner pigmented; outer plates of moderate length, tapering gently to diverging apices which are swollen knob-like and pigmented; inner claspers rather heavy, enlarged blade-like before acuminate, divergent apices; aedeagus in lateral view complex, composed of a pair of heavy ventral processes arising, swollen at base and curving gently to apex; and a heavy shaft, not quite as long as processes, bifid at apex and with a pair of lateral arms projecting laterad before point of separation of apical arms, exceeding them in length, apical arms divergent; in ventral view shaft is very broad.

Length: Male,  $3\frac{1}{2}$  mm.

Male holotype and paratypes, Shawnee Forest, Scioto Co., Ohio, June 9, 1943; paratypes, Monroe Co., Ohio, July 6, 1943; and paratype, Hocking Co., Ohio, September 19, 1943; all collected by D. J. & J. N. Knull.

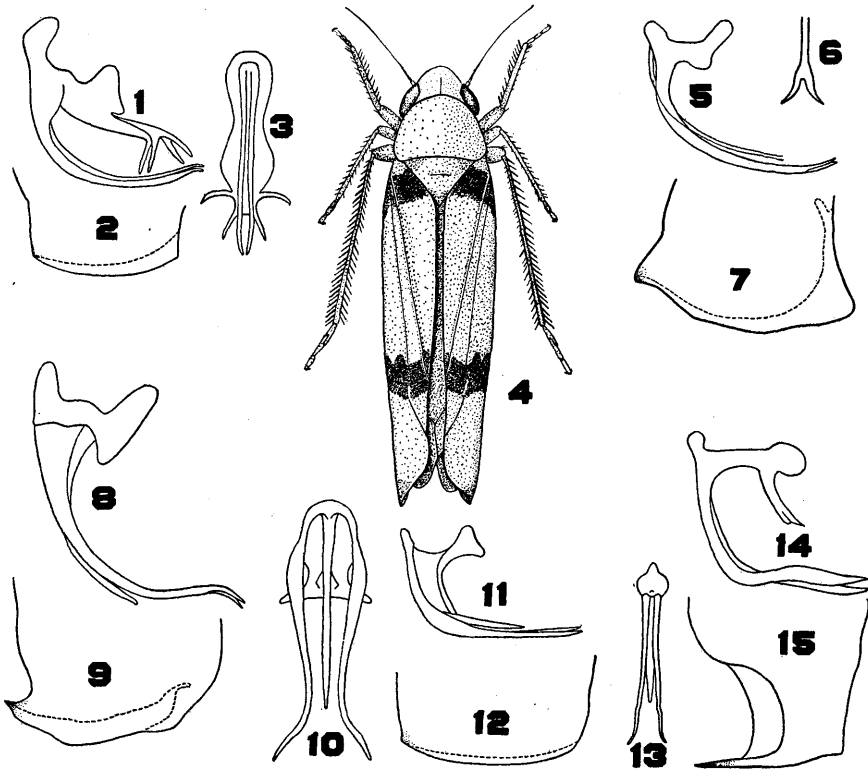
***Typhlocyba hockingensis* n. sp.**

Small, shining golden yellow above and below, gray eyes, elytra semihyaline, apical cells faintly smoky. Distinguished from all but *T. pomaria* McAtee by the falcate process from posterior border of size of ninth segment which is heavily chitinized, pigmented; distinguished from *T. pomaria* McAtee by heavier lateral processes of aedeagus.

Female, last ventral segment long, produced on median third, ovipositor exceeding pygofer by more than its width. Male, spine of pygofer pigmented, strongly protruding from ventral corner; aedeagus in lateral view with weak, short shaft, near apex of connective which is about as long as shaft between it and heavy pair of ventral processes which is three times as long as shaft, extends straight down on upper half, then curved abruptly dorsad at a little more than a right angle and is enlarged on apical half, then narrowed gradually to pointed apex; from ventral view shaft is not visible, processes are about parallel entire length, sinuate, apices turned in.

Length: Male and female,  $3\frac{1}{4}$  mm.

Male holotype, Hocking Co., Ohio, June 19, 1943; allotype, May 29, 1938; paratypes, May 29, 1938, to September 16, 1943; also paratypes as follows: Shawnee Forest, Scioto Co., Ohio, June 9, 1943; Great Smoky Mt. Nat. Park, Tenn., June 21, 1942; all collected by D. J. & J. N. Knull; and Indian Gap, Smoky Mts., Tenn., September 3, 1939, Mary Auten, collector. Paratypes in Collection of The Ohio State University and in the Canadian National Collection, No. 5505.



EXPLANATION OF PLATE

1. Lateral view of aedeagus of *T. shawneeana* n. sp.
2. Lateral view of hind margin of ninth segment, *T. shawneeana* n. sp.
3. Ventral view of aedeagus, *T. shawneeana* n. sp.
4. Dorsal aspect of *T. hinei* n. sp.
5. Lateral view of aedeagus of *T. oneka* n. sp.
6. Ventral view of apex of aedeagus shaft, *T. oneka* n. sp.
7. Lateral view of hind margin of ninth segment, *T. oneka* n. sp.
8. Lateral view of aedeagus, *T. putmani* n. sp.
9. Lateral view of hind margin of ninth segment, *T. putmani* n. sp.
10. Ventral view of aedeagus, *T. putmani* n. sp.
11. Lateral view of aedeagus, *T. cassiopeia* n. sp.
12. Lateral view of margin of ninth segment, *T. cassiopeia* n. sp.
13. Ventral view of aedeagus, *T. cassiopeia* n. sp.
14. Lateral view of aedeagus, *T. hockingensis* n. sp.
15. Lateral view of margin of ninth segment, *T. hockingensis* n. sp.

***Typhlocyba hinei* n. sp.**

Near *T. bifasciata* Boh., an European species, but with scutellum pale. Chalky white with dark brown eyes and two transverse bands on the elytra, the anterior extending from sides of scutellum across clavus, extending slightly caudad on corium, reaching costal margin but leaving pale anterior humeral part; the posterior band before crossveins, extending from apex of clavus curving a little cephalad toward costal margin, and narrowed. The elytra seem opaque but for costal area between bands and apical cells which are fumose semihyaline, veins white. Below white. This species belongs to the Danae Group.

Length: Female, 4 mm.

This beautiful insect is named for the late J. S. Hine, who collected a specimen. It occurs on white oak along with *T. tunicarubra* Gill.

Described from a series of females. Holotype and paratypes, Delaware Co., Ohio, July 8, 1942; paratypes July 1 and 15, 1943; all collected by D. J. & J. N. Knull; and a paratype, Wauseon, Ohio, July 8, 1896, J. S. Hine, collector. The Hine paratype is in the Herbert Osborn Collection at The Ohio State University.

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