

THE UNIVERSITY OF KANSAS
SCIENCE BULLETIN

Vol. XXXI, pt. II.]

NOVEMBER 1, 1947

[No. 16

A Revision of the Tribe Scaphytopini (*Homoptera*,
Cicadellidae) in America North of Mexico

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ABSTRACT: The following genera and subgenera of *Cicadellidae* in America north of México are revised: *Platymetopius*, *Japananus*, *Scaphytopius*, *Cloanthanus*, *Tumecus* and *Vertanus*. Keys to genera, subgenera, species and subspecies are included, as well as prints of male genitalia and last ventral segment of the females. Discusses 73 species and subspecies. Synonyms considered are as follows: *Cloanthanus* Ball = (*Deltopinus* Ball = *Convelinus* Ball = *Nasutoideus* Ball = *Platymoides* Ball); *Japananus hyalinus* (Osborn) = (*Platymetopius cinctus* Matsumura); *Scaphytopius* (*Scaphytopius*) *elegans* (Van Duzee) = (*Scaphytopius elegans* var. *glennanus* Ball = *Scaphytopius floridanus* Ball = *Scaphytopius floridanus* var. *glennanus* Ball); *Scaphytopius* (*Cloanthanus*) *fuscifrons* (Van Duzee) = (*Platymetopius abruptus* Ball); *Scaphytopius* (*Cloanthanus*) *dorsalis* (Ball) = (*Platymetopius bicolor* DeLong); *Scaphytopius* (*Cloanthanus*) *magdalensis* (Provancher) = (*Platymetopius obscurus* Osborn = *Platymetopius carolinus* Latbrop = *Cloanthanus atratus* DeLong = *Cloanthanus vaccinium* DeLong); *Scaphytopius* (*Cloanthanus*) *scriptus* (Ball) = (*Cloanthanus varius* DeLong); *Scaphytopius* (*Cloanthanus*) *cinereus* (Osborn and Ball) = (*Platymetopius parvus* Lathrop = *Platymoides oviedus* Ball); *Scaphytopius* (*Cloanthanus*) *acutus* (Say) = (*Jasrus modestus* Stal = *Platymetopius acutus* var. *dubius* Van Duzee = *Cloanthanus filamentus* DeLong = *Cloanthanus tenuis* DeLong); *Scaphytopius* (*Cloanthanus*) *latus* (Baker) = (*Platymetopius cuprescens* Osborn); *Scaphytopius* (*Cloanthanus*) *argutus* DeLong = (*Scaphytopius hastus* DeLong = *Scaphytopius lanceus* DeLong); *Scaphytopius* (*Cloanthanus*) *trilineatus* (Ball) = *Platymetopius pezatus* (Van Duzee); *Scaphytopius* (*Cloanthanus*) *abbreviatus* (DeLong) = (*Cloanthanus parvus* var. *niger* DeLong). *Cloanthanus* and *Tumecus* are reduced to subgenera of *Scaphytopius*. *Hebenarus huachucus* DeLong is placed in the subgenus *Scaphytopius*. Both lectotype and lectoallotype are designated for the following species: *Japananus hyalinus* (Osborn), *Scaphytopius* (*Cloanthanus*) *nigricollis* (Ball), *Scaphytopius* (*Cloanthanus*) *fulvus* (Osborn), *Scaphytopius* (*Cloanthanus*) *fulvus collaris* (Sanders and DeLong), *Scaphytopius* (*Cloanthanus*) *cinnamoneus* (Osborn), *Scaphytopius* (*Cloanthanus*) *angustatus* (Osborn), *Scaphytopius* (*Cloanthanus*) *nigriviridis* (Ball) and *Scaphytopius* (*Cloanthanus*) *rubellus* (Sanders and DeLong). Lectoallotype only is designated for each of the following species: *Scaphytopius*

20. *Scaphytopius (Cloanthanus) flavifrons* Hepner

Scaphytopius (Cloanthanus) flavifrons, Hepner, L. W., Jour. Kan. Ent. Soc., XLX, p. 91, 1946.

Resembling *pennatus* but broader and with longer apical processes at apex of aedeagus. Length: female 4 mm., male 3.8 mm.

Color: Crown dark brown with light marks as follows: wedge, two spots on each side of wedge along anterior margin, the one nearest eye smallest; a spot on each side of median suture on disc; a large spot on each side of median suture and a smaller one next each eye on posterior margin. Pronotum light brown with many fuscous dots throughout; typical light vittae indicated. Scutellum ivory to yellow with dark color restricted primarily to basal half. Face bright yellow, sometimes flecked on clypeus and outer margins of genae; much lighter than venter. Forewings translucent brown and white, the white primarily restricted to aeroles in the male; darkest on outer antepical cell and adjacent area of costa.

Structural Characteristics: Crown about one and one-half times as long as width between eyes, margins convex on each side of rounded apex. Pronotum about three-fourths length of crown, about two and one-half times as wide as length at middle and four and one-half times length behind eyes. Clypeus about twice as long as width at ocelli, slightly sinuate at antennae. Clypellus broadest near apex. Face distinctly convex in lateral view. Forewing with ten to twelve recurved veins to costa and often extra cross-veins in clavus.

Genitalia: Valve about as long as greatest width, posterior margin distinctly convex on each side of bluntly-pointed apex; anterior margin with long, slender, median lobe. Aedeagus roughly "L"-shaped, dorsal part broader but slightly shorter, shaft slightly curved near base, a pair of pointed apical processes, each about two-fifths length of shaft. Styles about two and one-half times basal width, distinct lobe on outer margin before outwardly projecting, finger-like, apical process.

Last ventral segment of female about twice as wide as length at middle, lateral margins convex; posterior margin convex, slightly lobed at middle.

Types: Holotype ♂, Brownsville, Texas, May 25, 1939, D. J. and J. N. Knull, in the Knull collection, Ohio State University, Columbus, Ohio. Allotype ♀, Brownsville, Texas, Dec. 29, 1945, R. H. Beamer, in the Snow Entomological Collections. 1 ♀ paratype, Cameron Co., Texas, Aug. 3, 1938, R. H. Beamer.

Host Plants: No host plant is known.

Comparative Notes: This species is apparently restricted to the extreme southern part of Texas and is relatively rare. Its broadness and distinct genitalia separate it from any other species in the area.

21. *Scaphytopius (Cloanthanus) anisacanus* (Ball)

Nasutoideus anisacanus, Ball, E. D., Can. Ent., LXIII, p. 222, 1931.

Resembles *loricatus* but larger, with a different pattern on crown and with long aedeagus and small paraphyses. Length: female 4.5 mm., male 4.5 mm.

Color: Crown with area between eyes ivory with brown irrorations, irregular brown markings around wedge and usually dark lines connecting these two dark areas; this leaves a more or less complete light band before the eyes and the remainder of crown consisting primarily of alternating thin light and dark irregular lines. Pronotum milky with fuscous irrorations excepting typical light lines. Scutellum brown with typical light markings. Face creamy yellow with apex of clypellus black and sometimes light markings on clypeus and a few marks behind eye.

Structural Characteristics: Crown about one and two-thirds as long as width between eyes, slightly concave on disc, margins slightly convex to a bluntly-pointed apex. Pronotum almost three-fourths as long as crown, two and one-half times as wide as length at middle and about four and one-half times length behind eye. Clypeus over twice as long as width at ocelli, slightly sinuate near base of antennae. Clypellus broadest near apex. Face almost straight in lateral view. Forewing with vein-like markings in brachial cell and about eleven recurved veins to costa.

Genitalia: Valve almost as long as greatest width, posterior margin oval, with a small apical lobe; anterior margin somewhat concave on each side of median lobe. Paraphyses small and short, much shorter than shaft of aedeagus. Aedeagus about as long as plate, evenly narrowed to sharp curve near outer third; apical third almost parallel margined to a pair of small, slender apical processes. Styles over twice as long as greatest width, narrowest near middle, broadly rounded on outer margin to a short, outwardly projecting, apical process.

Last ventral segment of female slightly less than twice as wide as length at middle, lateral margins slightly convex; posterior margin

almost parallel-margined throughout, consisting of a basal, stem-like part, a short, simple, slightly curved shaft and an apical part about as long as basal part but curved at a right angle on middle. Styles somewhat over twice as long as basal width, "dog-legged" and almost parallel margined on middle, slightly lobed on outer margin at apical fourth before finger-like apical process.

Last ventral segment of female slightly less than twice as wide as length at middle, lateral margins slightly concave, posterior margin produced at middle with a very shallow median notch.

Types: Holotype ♂, allotype ♀, and 1 ♀ paratype, Brownsville, Texas, June 29, 1938, R. H. Beamer, in the Snow Entomological Collections. 1 ♂ paratype, Brownsville, Texas, June 29, 1938, L. W. Hepner.

Host Plants: The host plant is not known.

Comparative Notes: This species, evidently restricted to southern Texas, is quite distinctive with its yellow face and short aedeagus with short, small genital paraphyses.

23. *Scaphytopius (Cloanthanus) brunneus* Hepner

Scaphytopius (Cloanthanus) brunneus, Hepner, L. W., Jour. Kan. Ent. Soc., XIX, p. 93, 1946.

Resembles *loricatus* but lighter, darker on lateral margins of face and with small genital paraphyses. Length: female 4 mm., male 3.7 mm.

Color: Crown brown with light markings as follows: narrow line along anterior margin; wedge and a pair of oblique lines on each side; three pairs of markings on a band before eyes, the median pair longest; two pairs of spots on posterior margin, one next each eye and one on each side of median suture, the median pair often split anteriorly. Pronotum about same color as crown with typical vittae evident. Scutellum brown with typical light markings. Clypeus, lorae and clypellus yellow to fulvous with white sharksmouth; irregular area along margin between eyes and irregular light markings in area of sharksmouth, brown; apex of clypellus dark. Genae with numerous dark irrorations, vitta behind eye irregular but distinct. Forewing semihyaline fulvous with milky aeroles and brown irrorations; veins brown, becoming fuscous on apex and costa.

Structural Characteristics: Crown about one and one-third times as long as width between eyes, longer in female, anterior margin almost straight on each side of a blunt apex; wedge about one-fourth length of crown. Pronotum about three-fourths as long as

crown, shorter in female, about two and one-half times as wide as length at middle and about four times as wide as length behind eyes. Clypeus over twice as long as width at ocelli, practically no constriction at antennae. Clypeus relatively slender and somewhat enlarged near apex. Face in lateral view almost straight in male, definitely concave between anterior margin of eyes in female. Forewing with several vein-like marks in brachial cell and eight or nine recurved veins to costa.

Genitalia: Valve somewhat shorter than greatest width; posterior margin convex on each side of a bluntly pointed apex; anterior margin with relatively long median lobe. Plates short and very broad near base. Aedeagus in lateral view, broad, roughly "U"-shaped, dorsal part shortest, shaft broad and short, enlarged at apex. Paraphyses very small and short, hardly reaching to apex of shaft of aedeagus. Styles about three times as long as basal width, relatively large lobe on outer margin just before slender, finger-like apical process.

Last ventral segment of female about twice as wide as length at middle, lateral margin convex, posterior margin with small lobe at each side and broad median lobe.

Types: Holotype ♂, allotype ♀ and a pair of paratypes, Paradise Key, Fla., April 9, 1921, D. M. DeLong, in the DeLong collection, Ohio State University, Columbus, Ohio. Additional paratypes as follows: 2 ♀ ♀, Key Largo, Fla., July 19, 1939, R. H. Beamer.

Host Plants: No host plant is known.

Comparative Notes: The only species with which this might be confused in southern Florida is *albifrons*, from which it may be separated by its marginal infuscation on face, and small paraphyses.

24. *Scaphytopius (Cloanthanus) fuscifrons* (Van Duzee)

Palmetopus fuscifrons, Van Duzee, Bull. Buffalo Soc. Nat. Hist., V, p. 200, 1904.
Palmetopus abruptus, Ball, E. D., Ent. News, XX, p. 165, 1909.

Resembling *frontalis*, but with shorter crown, face and crown purely dark and with plates of male very short. Length: female 3 mm., male 4 mm.

Color: Crown fuscous and white mottled in male, lighter in female, usually darkest on each side of median suture. Pronotum same color as crown with irregular vittae usually evident. Scutellum dark, orange spot near each basal corner, typical light markings distinct. Face in male fuscous with small white spots through-