

**Two new species of the genus *Togoda* Melichar, 1906  
(Hemiptera: Fulgoroidea: Tropiduchidae) from Western and Southern Africa,  
with description of two new subgenera**

**Два новых вида рода *Togoda* Melichar, 1906  
(Hemiptera: Fulgoroidea: Tropiduchidae) из Западной и Южной Африки  
с описанием двух новых подродов**

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**Key words:** Afrotropical Realm, morphology, new species, new subgenus, systematics, Trienopini.

**Ключевые слова:** Афротропическое царство, морфология, новый вид, новый подрод, систематика, Триенопини.

**Abstract.** Two new species of the genus *Togoda* Melichar, 1906 (Tropiduchinae, Trienopini) are described from tropical Africa, namely: *Togoda kakum* Gnezdilov, **sp.n.** — from Kakum National Park in Ghana and *T. ernsti* Gnezdilov, **sp.n.** — from northeastern Republic of South Africa. A new subgenus, *Togoda (Afromela)* Gnezdilov, **subgen.n.**, is erected to accommodate *T. minima* Gnezdilov, 2025 and *T. ernsti* Gnezdilov, **sp.n.** and a new subgenus, *Togoda (Leoma)* Gnezdilov, **subgen.n.**, is erected to accommodate *T. carinata* Gnezdilov, 2025. The characters of male genitalia structure and hind wing shape and venation are discussed in course of clarification of relationships between the taxa.

**Резюме.** Два новых вида рода *Togoda* Melichar, 1906 (Tropiduchinae, Trienopini) описаны из тропической Африки: *Togoda kakum* Gnezdilov, **sp.n.** — из Национального парка Какум в Гане и *T. ernsti* Gnezdilov, **sp.n.** — с северо-востока Южноафриканской Республики. Новый подрод *Togoda (Afromela)* Gnezdilov, **subgen.n.** установлен для *T. minima* Gnezdilov, 2025 и *T. ernsti* Gnezdilov, **sp.n.** и новый подрод *Togoda (Leoma)* Gnezdilov, **subgen.n.** установлен для *T. carinata* Gnezdilov, 2025. Признаки строения гениталий самцов и признаки формы и жилкования заднего крыла обсуждены в рамках установления родственных отношений таксонов.

## Introduction

The genus *Togoda* Melichar, 1906 is a small tropiduchid genus of the tribe Trienopini Fennah, 1954 of the subfamily Tropiduchinae Stål, 1866, with five species distributed across tropical Africa from Togo to southern Africa and Madagascar described up to date [Melichar, 1906; Schmidt, 1910; Gnezdilov, 2025].

Below two new species of the genus are described based on newly available materials from the Republic

of South Africa and on the specimens collected between 2005 and 2022 in Ghana and previously identified only to genus after the females [Gnezdilov, 2022, 2025]. The study also confirmed clear differences in fore wing shape and male genitalia structure between Western African and South African species of the genus revealed previously by the key [Gnezdilov, 2025], but not fixed taxonomically which I am doing now by erecting a new subgenus to accommodate *Togoda minima* Gnezdilov, 2025 and one of the new species described here. This solution makes the taxonomic position of *T. carinata* Gnezdilov, 2025 from Madagascar uncertain within the genus until male of this species will be studied, however, the female is well distinguished by strong carina of postclypeus and fore and middle femora flattened or slightly foliate which are treated here together with the features of hind wing structure as the characters of a separate subgenus too.

## Material and methods

Morphological terminology follows Anufriev and Emeljanov [1988] for head and wings and Bourgoin [1993], Gnezdilov [2025], and Gnezdilov et al. [2014] — for male and female genitalia.

Photographs of dry specimens were taken using a Canon 5D Mark IV digital camera equipped with the lens Canon MP-E 65mm f/2.8 1–5x macro and a Canon Macro Twin Lite MT-26EX-RT flash. Photographs of alive specimens and landscapes were taken using Nikon D 7000 camera, with the lens AF-S Micro Nikkor 60mm 1:2.8 G ED. Drawings were made using a Leica MZ9.5 stereomicroscope with a camera lucida. Images were produced using Helicon Focus v. 7.6.4 and Adobe Photoshop software.

The material examined including the type specimens of the species described are deposited in the Royal Belgian Institute of Natural Sciences, Brussels, Belgium (RBINS), Muséum national d'Histoire naturelle, Paris, France (MNHN), and the Zoological Institute of the Russian Academy of Sciences, Saint Petersburg, Russia (ZIN).

Nomenclatural acts introduced in the present work are registered in ZooBank (www.zoobank.org) under urn:lsid:zoobank.org:pub:023298CB-201D-48A2-908E-F36B20336228.

## Systematics

### Tropiduchidae Stål, 1866

#### Tropiduchinae Stål, 1866

#### Trienopini Fennah, 1954

#### *Togoda* Melichar, 1906

Type species: *Togoda africana* Melichar, 1906, by original designation and monotypy.

#### *Togoda (Togoda)* Melichar, 1906

Type species: *Togoda africana* Melichar, 1906, by original designation and monotypy.

**Diagnosis.** Postclypeus with tiny median carina. Fore wings wide, without hypocostal plate, with 1/3–1/4 of its length behind apex of clavus in lateral view (Fig. 2). Hind wings well developed, tri-lobed, with largest remigial lobe and with weak cubital and vannal clefts (Figs 4, 5). Fore and middle femora no

flattened neither foliate. Phallobase short, not covering most of aedeagus, symmetric, without processes (Figs 6, 7). Aedeagus with 2–4 processes directed downwards. Pygofer with nearly straight or concaved hind margins (Fig. 8).

**Composition.** *T. africana* Melichar, 1906, *T. excisa* Gnezdilov, 2025, and *T. kakum* sp.n.

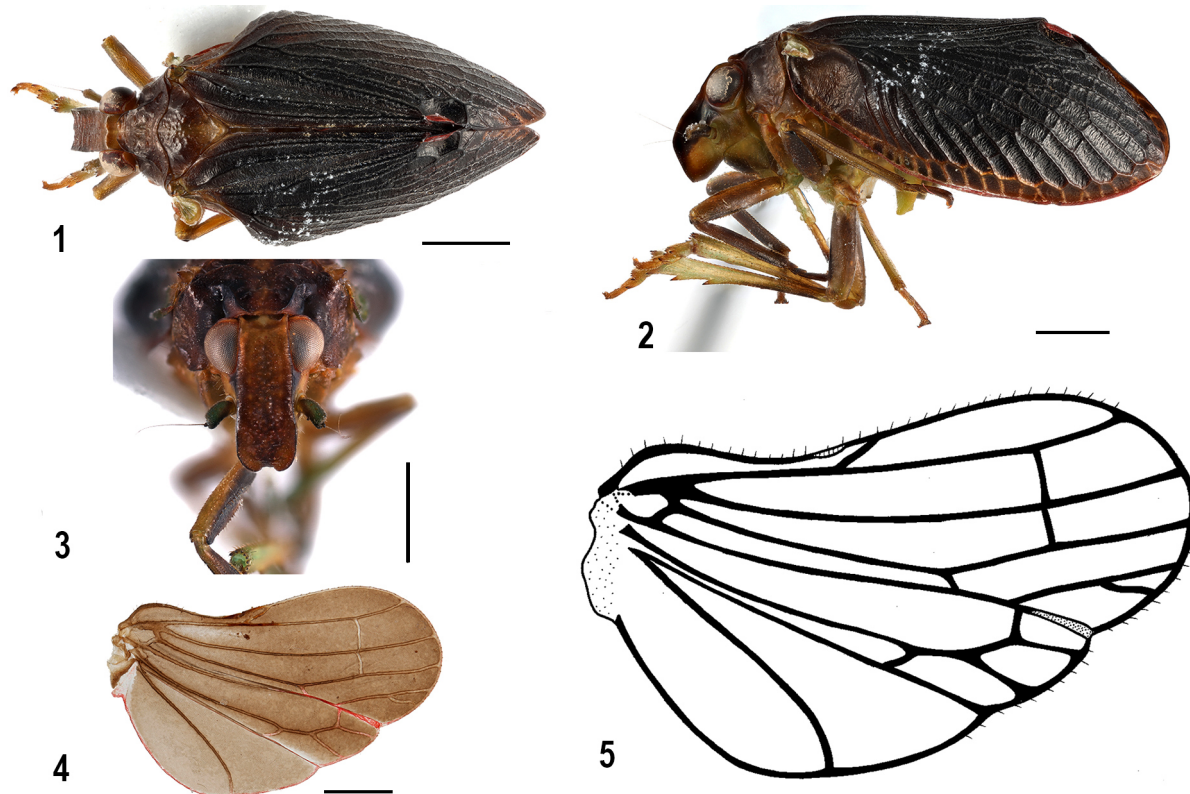
#### *Togoda (Togoda) kakum* Gnezdilov, sp.n.

Figs 1–18.

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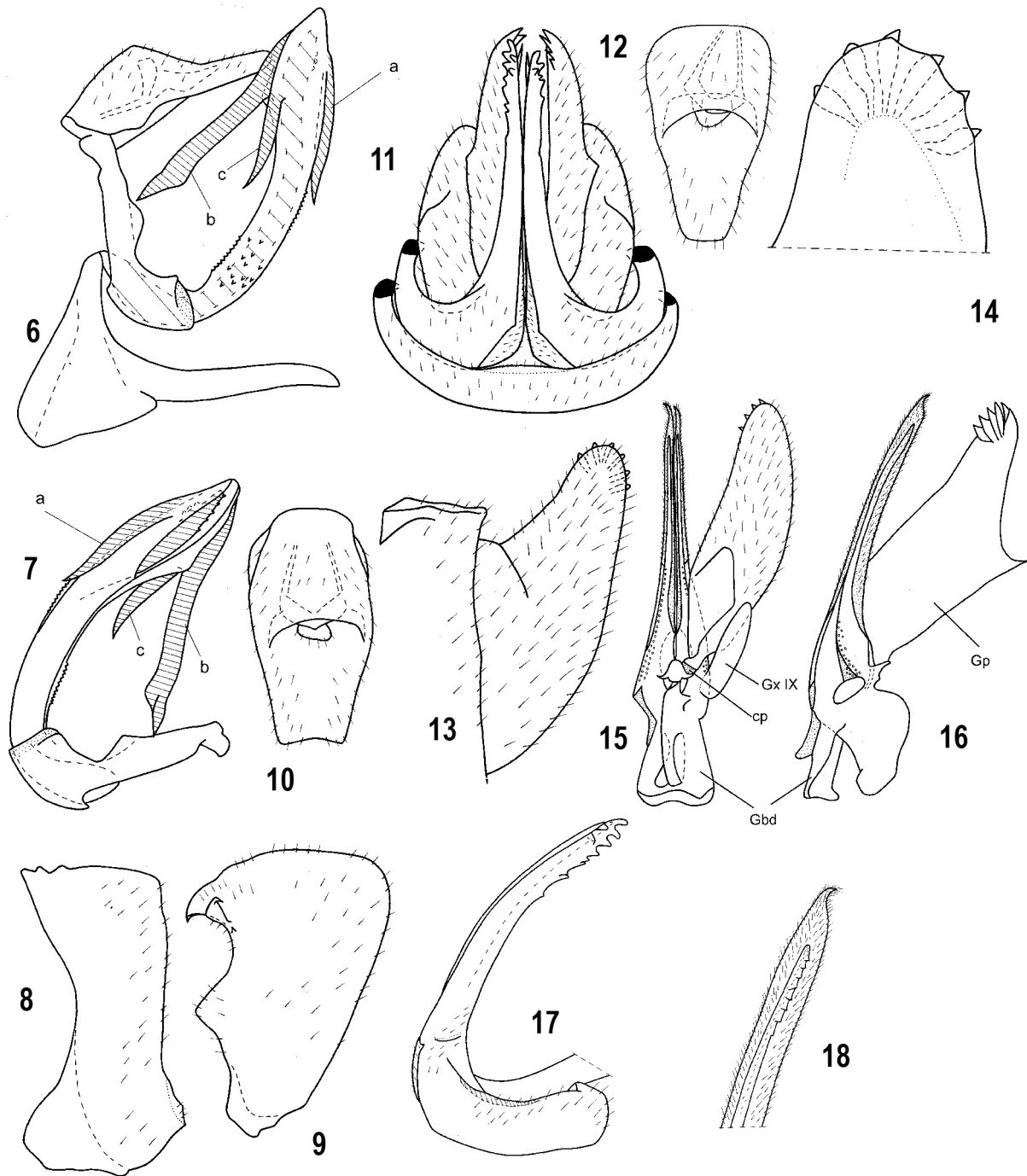
**Material.** Ghana, *Kakum National Park*: Holotype, ♂, 5°20'55" N, 1°23' W, 159 m, fogging primary forest, 6–28.XI.2005, L. Baert, D. Debakker & R. Jacquè leg. (IRSNB). Paratypes: 5♂♂, 6♀♀ — 5°20'55" N, 1°23' W, 195 m, fogging second rain forest, 28.XI.2005, D. Debakker leg. (IRSNB — 3♂♂, 4♀♀; ZIN — 2♂♂, 2♀♀); 2♂♂, 3♀♀ — 5°20'55" N, 1°23' W, 159 m, fogging primary forest, 6–28.XI.2005, L. Baert, D. Debakker & R. Jacquè leg. (IRSNB — 2♂♂, 2♀♀; ZIN — 1♂; 2♀♀ — 5°21.198' N, 1°23.034' W; 202 m; sweeping in the forest canopy at 11–40 m; 4–6.V.2022, V.M. Gnezdilov leg. (ZIN); *Angu village*: 2♀♀ — 5°02.007' N, 1°45.602' W; 98 m; sweeping trees and shrubs in forest and forest edge; 1.V.2022; Z. Assan & V.M. Gnezdilov leg. (ZIN).

**Description.** *Structure* (Figs 1–5). Habitually and by the coloration pattern close to *Togoda africana* Melichar, 1906 and *T. excisa* Gnezdilov, 2025 [Gnezdilov 2025: Fig. 4]. Coryphe transverse, three times as wide as long at midline; anterior margin weakly notched medially (Fig. 1). Metopial proboscis joint to postclypeus at right angle in lateral view (Fig. 2). Metope long and narrow, three times as long as wide medially, parallel-sided. Metope without distinct sublateral carinae, with only pustules (traces of larval sensory pits); lower



Figs 1–5. Details of morphology of *Togoda (Togoda) kakum* sp.n., female paratype: external appearance (1–3) and right hind wing (4, 5). 1 — dorsal view; 2 — lateral view; 3 — frontal view. Scale bar 1 mm.

Рис. 1–5. Детали строения паратипа самки *Togoda (Togoda) kakum* sp.n.: внешний вид (1–3) и правое заднее крыло (4, 5). 1 — сверху; 2 — сбоку; 3 — спереди. Масштаб 1 мм.



Figs 6–18. Details of genital morphology of *Togoda (Togoda) kakum* sp.n.: holotype, male (6–10) and paratype, female (11–18). 6 — anal tube, penis, and connective, left lateral view; 7 — penis, right lateral view; 8 — pygofer, left lateral view; 9 — style, lateral view; 10 — anal tube, dorsal view; 11 — sternite VII and ovipositor, ventral view; 12 — anal tube, dorsal view; 13 — pygofer and gonoplac, lateral view; 14 — apex of gonoplac, lateral view; 15 — posterior connective laminae of gonapophyses IX (PCL), gonospiculum bridge, right gonoplac, and gonocoxa IX, dorsal view; 16 — posterior connective laminae of gonapophyses IX (PCL), gonospiculum bridge, and right gonoplac, lateral view; 17 — right anterior connective lamina of gonapophyse VIII and gonocoxa VIII, lateral view; 18 — apex of posterior connective laminae of gonapophyses IX. Abbreviations: a, b, c — processes of aedeagus, cp — point of connection between PCL and gonoplac, Gbd — gonospiculum bridge, Gp — gonoplac, Gx IX — gonocoxa IX.

Рис. 6–18. Детали строения генитальных структур *Togoda (Togoda) kakum* sp.n.: голотип, самец (6–10) и паратип, самка (11–18). 6 — анальная трубка, пенис и коннектив, слева, сбоку; 7 — пенис, справа, сбоку; 8 — пигофер, слева, сбоку; 9 — стилус, сбоку; 10 — анальная трубка, сверху; 11 — стернит VII и яйцеклад, снизу; 12 — анальная трубка, сверху; 13 — пигофер и гоноплака, сбоку; 14 — вершина гоноплаки, сбоку; 15 — задние соединительные пластинки гонапофизов IX (PCL), мост гоноспиккула, правая гоноплака и гонококка IX, сверху; 16 — задние соединительные пластинки гонапофизов IX (PCL), мост гоноспиккула, правая гоноплака, сбоку; 17 — правая передняя соединительная пластинка гонапофиза VIII и гонококка VIII, сбоку; 18 — вершина задней соединительной пластинки гонапофизов IX. Сокращения: a, b, c — отростки аedeгуса, cp — точка соединения PCL и гоноплаки, Gbd — мост гоноспиккула, Gp — гоноплака, Gx IX — гонококка IX.

margin of metope distinctly concaved in frontal view (Fig. 3). Postclypeus with tiny median carina running from its middle. Anteclypeus with tiny median carina. Rostrum long, surpassing hind coxae; 2<sup>nd</sup> and 3<sup>rd</sup> segments nearly equal in length; 3<sup>rd</sup> segment slightly narrowing apically.

Fore wings elongate and wide in lateral view (Figs 1, 2). Radius and median of fore wings furcating closely to basal cell at the same level;  $M_1$  and  $M_2$  again furcating before wing middle. Forewing vein branching sequence: R 5–6; M 10–12; CuA 2, furcating before wing middle at the same level with  $M_1$  and  $M_2$ . Hind wings well developed, tri-lobed, with largest remigial lobe, with weak cubital and vannal clefts and with deeply concaved costal margin (Figs 4, 5). Basal cell large. Hind wing vein branching sequence: R 2, furcating after coupling lobe at wing middle; r-m 1; M 1; m-cua 1; CuA 3, firstly furcating after wing middle, soon after furcation posterior branch ( $CuA_2$ ) partly fused with CuP and furcating apically; CuP 1; Pcu 2, furcating apically;  $A_1$  2, furcating at wing middle, anterior branch ( $A_{1,1}$ ) partly fused with Pcu in its apical third;  $A_2$  1. Hind tibia with two lateral spines at its distal half from the middle and with nine apical spines. First and second metatarsomeres with long dense setae ventrally. First metatarsomere wider and slightly longer than second one, with two latero-apical spines and four intermediate spines in a whole row. Claw apices surpassing hind margin of arolium of pretarsus in dorsal view. Each claw with three long lateral setae.

**Coloration** (Figs 1–4). Coryphe, metope, scapus, pedicel, and pro- and mesonotum dark brown. Head laterally below eyes with wide greenish yellow transverse stripe. Postclypeus dark brown frontally and greenish yellow laterally. Anteclypeus greenish light yellow. Rostrum greenish light yellow, with dark brown apex. Fore wings dark brown to black, with brown to dark brown ear-shaped process of precostal margin. Hind wings yellowish brown to dark brown. Thorax, coxae, and abdominal sternite III greenish light yellow. Fore femora and tibiae dark brown. Middle and hind femora brown to dark brown. Middle tibiae light brown to brown. Hind tibiae greenish yellow to light brown. Fore and middle tarsi brown. Hind tarsi greenish yellow. Claws brown to dark brown. Pretarsus with dark brown dorso-lateral plates. Apices of leg spines dark brown to black. Male abdominal sternites IV–VII brown, with greenish yellow hind margins. Male anal tube and pygofer yellowish light brown. Styles yellowish light brown, with dark brown caudo-dorsal angles. Female abdominal sternites IV–VI brown, with greenish yellow hind margins; sternite VII brown to dark brown. Female anal tube greenish yellow, with brown apex. Gonocoxa VIII dark brown to black. Anterior connective lamina of gonapophyse VIII yellowish brown to dark brown. Gonoplags yellowish, with dark brown teeth.

**Male genitalia structure** (Figs 6–10). Anal tube slightly elongate, almost twice as long as wide medially, with convex lateral margins and weakly concaved apical margin in dorsal view (Fig. 10). Anal column short and wide. Pygofer elongate vertically, with nearly straight hind margins (Fig. 8). Penis curved in lateral view (Figs 6, 7). Phallobase short, 1/4 of aedeagus length, symmetric, with straight upper margin. Aedeagus long, narrow, with small denticles on the margins and on the surface. Aedeagus with one long pointed apically subapical process directed downwards on right side (process b) and two long pointed apically subapical processes on left side (processes a and c) (Figs 6, 7). Longest process (b) reaching suspensorium. Connective with large wide cup. Style with rounded caudo-dorsal angle and strong nearly acute protuberance below capitulum (Fig. 9).

**Female terminalia** (Figs 11–18). Hind margin of sternite VII weakly convex medially (Fig. 11). Gonoplags large,

triangular, with directed upwards apices (Fig. 13). Each gonoplag with six large teeth apically on inner side (Fig. 14). Anal tube elongate, twice as long as wide medially, narrowing apically to truncate apex (in dorsal view) (Fig. 12). Anal column small. Gonocoxa VIII narrow, with a weak lobe of hind margin (Fig. 17). Anterior connective lamina of gonapophyse VIII long and narrow, with several teeth in its apical third. Endogonocoxal process long and narrow, narrowing apically. Posterior connective laminae of gonapophyses IX (PCL) in shape of narrow triangular (in dorsal view), with straight and narrow distal parts (Figs 15, 16, 18). Gonospiculum bridge large (Gbd), completely fused with PCL (Figs 15, 16, Gbd). Gonoplags have point connections with basal part of PCL dorsally (Fig. 15, cp, 16, Gp). Gonocoxa IX fused with Gbd dorsally (Fig. 15, Gx IX).

Total length. Males — 5.5–6.0 mm. Females — 6.2–7.0 mm.

**Etymology.** Species is named after the type locality — Kakum National Park (Fig. 19). The name should be treated as a noun in opposition.

**Comparison.** The species is closely related to *T. excisa* Gnezdilov, 2025 from the southwest of the Central African Republic by narrow aedeagus, anal tube concaved apically in dorsal view, and style with strong nearly acute protuberance below capitulum [Gnezdilov, 2025: Fig. 9]. It is also similar to *T. africana* Melichar, 1906 from Togo by the presence of three long processes of aedeagus and nearly straight hind margins of pygofer [Gnezdilov, 2025: Fig. 8], however, well distinguished by larger anal lobe of hind wing, furcating first anal vein ( $A_1$ ), and partly fused  $CuA_2$  and CuP from one hand and partly fused Pcu and  $A_{1,1}$  from another hand [Gnezdilov, 2025: Fig. 7A] (Fig. 5). From both mentioned species it well differs by very long process on right side of aedeagus (process b) and large cup of connective (Figs 6, 7).

#### *Togoda (Afromela)* Gnezdilov, **subgen.n.**

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Type species: *Togoda ernsti* Gnezdilov, sp.n., by original designation.

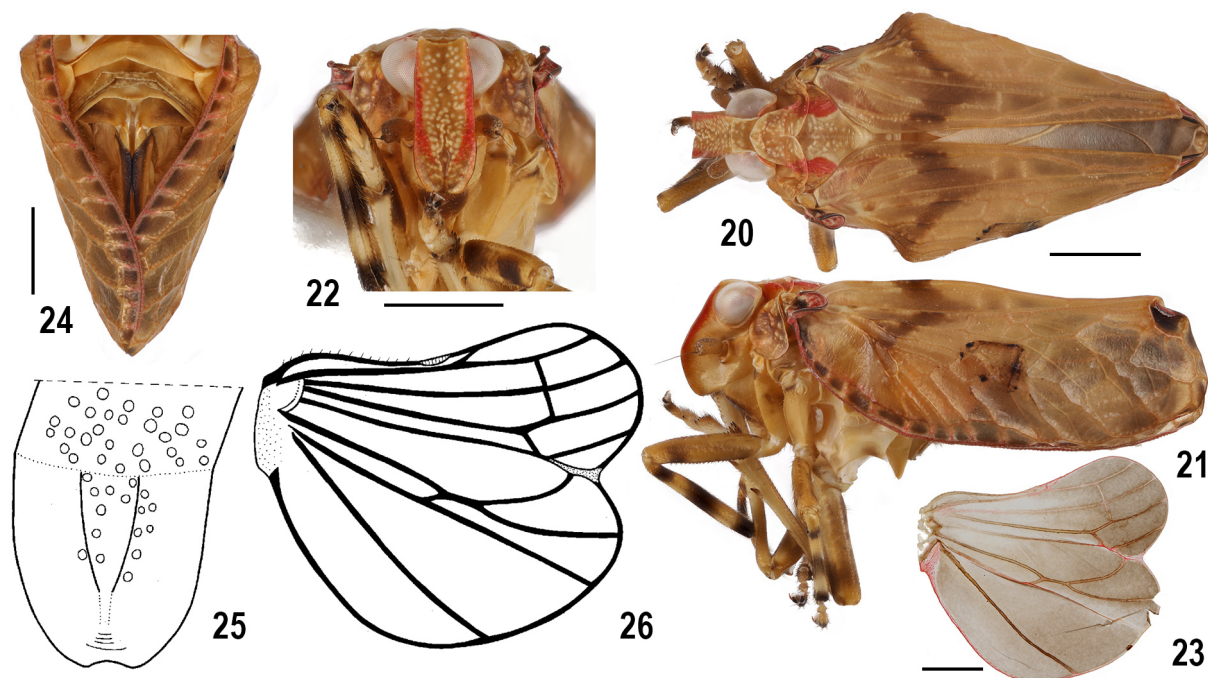
**Diagnosis.** Metope with short sublateral carinae in its lower part, loop-shaped (Fig. 25) or without carinae. Metopial proboscis with a weak notch frontally or almost without it [Gnezdilov,



Fig. 19. Type locality of *Togoda (Togoda) kakum* sp.n., Kakum National Park, rope bridge in the forest canopy at 40 m. Photo by V.M. Gnezdilov.

Рис. 19. Типовое местообитание *Togoda (Togoda) kakum* sp.n., Национальный парк Какум, верёвочный мост в лесных кронах на высоте 40 м. Фото В.М. Гнездилова.





Figs 20–26. Details of morphology of *Togoda (Afromela) ernsti* sp.n.: holotype (23, 25, 26) and paratype (20–22, 24). 20–22 — external appearance; 20 — dorsal view; 21 — lateral view; 22 — frontal view; 23, 26 — left hind wing; 24 — abdomen, ventral view; 25 — metope, frontal view. Scale bars: 1 mm.

Рис. 20–26. Детали строения *Togoda (Afromela) ernsti* sp.n.: голотип (23, 25, 26) и паратип (20–22, 24). 20–22 — внешний вид; 20 — сверху; 21 — сбоку; 22 — спереди; 23, 26 — левое заднее крыло; 24 — брюшко, снизу; 25 — метопа, спереди. Масштаб: 1 мм.

2025: Fig. 6F]. Postclypeus with fine median carina in its lower part or without carina. Fore wings narrow, without hypocostal plate, with 1/5–1/9 of its length behind apex of clavus in lateral view [Gnezdilov, 2025: Fig. 5B] (Fig. 21). Hind wings well developed, tri-lobed, with wide remigial, remigio-vannal, and anal lobes, deep cubital cleft and indistinct vannal cleft (Figs 23, 26). Fore and middle femora not flattened neither foliate. Phallobase long, covering most of aedeagus, assymetric, with two processes directed upwards (Figs 27, 28). Aedeagus with one hook-shaped subapical process directed downwards. Pygofer with convex hind margins (Fig. 29).

**Etymology.** Subgeneric name is an amalgamation of «Africa» and «Melichar». Feminine in gender.

**Composition.** *T. minima* Gnezdilov, 2025 and *T. ernsti* sp.n. Apparently *T. tranvaalensis* Schmidt, 1910 also belongs to this subgenus, however, final decision may be done only after the type material will be examined or the material from the type locality will be available for study.

#### *Togoda (Afromela) ernsti* Gnezdilov, sp.n.

Figs 20–32.

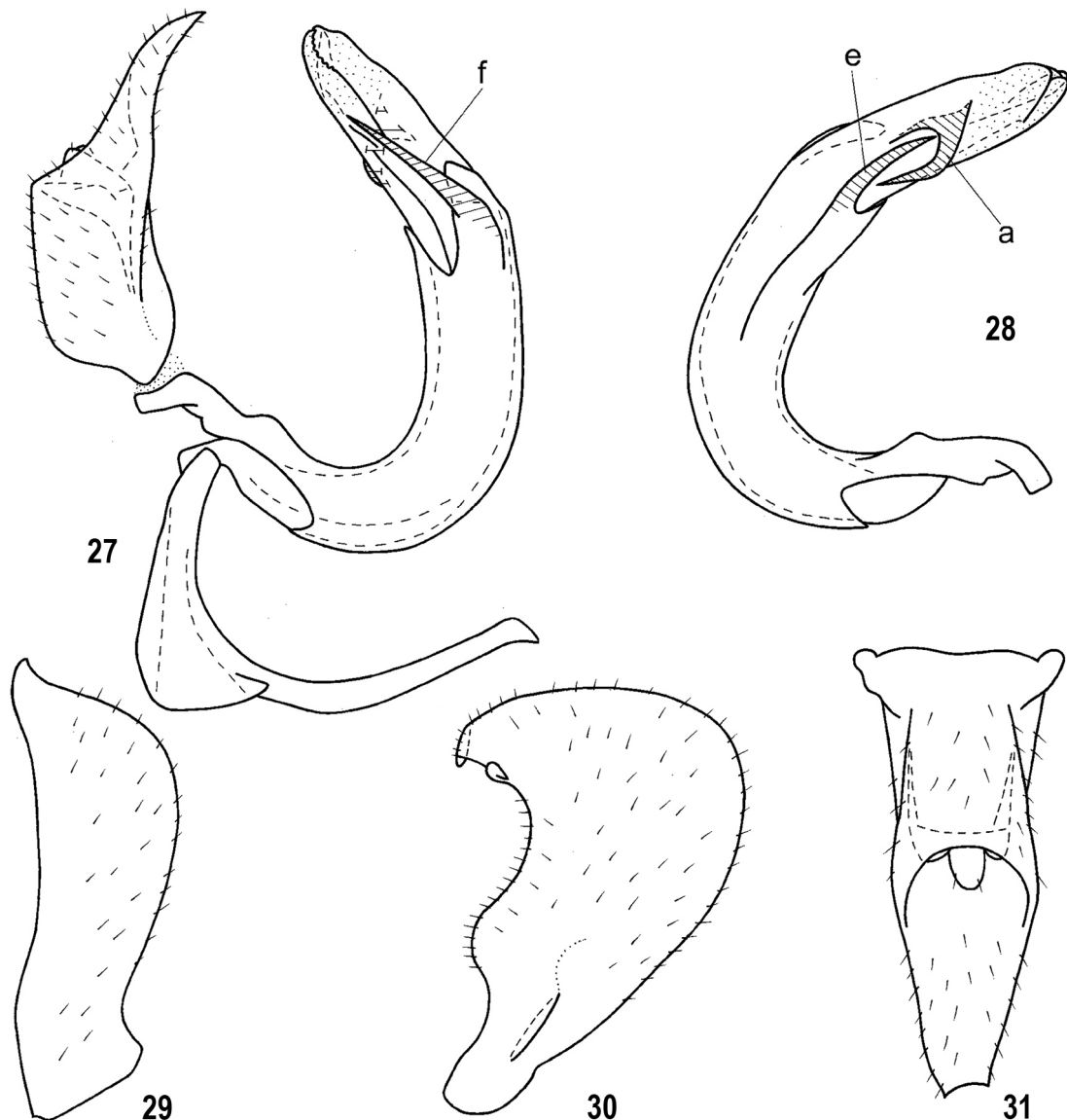
urn:lsid:zoobank.org:act:0B7DB2D6-D470-4FAE-AA0B-55176E926F9C

**Material.** Republic of South Africa, Little Switzerland Resort: Holotype, ♂, 1700 m, 8.II.2025, E. Klimsa leg. (ZIN); Paratype: ♀, 1700 m, 8.II.2025, E. Klimsa leg. (ZIN).

**Description.** *Structure* (Figs 20–26). Coryphe weakly transverse, 1.5 times as wide as long medially, with slightly concaved lateral margins and weakly convex anterior margin (Fig. 20). Metope long and narrow, 2.5 times as long as wide medially, parallel-sided. Metope with only pustules (traces of larval sensory pits) in its upper part and with short sublateral carinae nearly joint at acute angle, loop-shaped, in its lower part (in frontal view); lower margin of metope slightly concaved in frontal view (Figs 22, 25). Metopial proboscis short in lateral view. Metope and postclypeus joint nearly at right angle in

lateral view. Anteclypeus with fine median carina. Rostrum surpassing hind coxae by the length of its third segment which is slightly narrowing apically; 2<sup>nd</sup> and 3<sup>rd</sup> segments equal in length. Pronotum large, with obtusely angulate anterior margin and notched hind margin, without carinae. Paradiscal fields of pronotum wide behind eyes. Paranotal lobes of pronotum wide, without carinae. Mesonotum large, nearly as long as pronotum at midline, without carinae. Tegulae large. Fore wings elongate and narrow in lateral view, with 1/7 of its length behind apex of clavus (Fig. 21). The veins with small sensory pits by sides. Basal cell long and narrow. Fore wing vein branching sequence: R 6; r-m 3; M 7–8; m-cua 5–6; CuA 1; many transverse veins between branches of median. Radius and median furcating at same level close to basal cell. Pcu and A<sub>1</sub> joint at the middle of clavus. Hind wings well developed, nearly as long as fore wings, with widely concaved costal margin, tri-lobed, with wide remigial, remigio-vannal, and anal lobes, deep cubital cleft and indistinct vannal cleft (Figs 23, 26). Hind wing vein branching sequence: R 2, furcating after wing middle and coupling lobe; r-m 1; M 1; m-cua 1; CuA 2, furcating in its apical third, soon after furcation posterior branch (CuA<sub>2</sub>) shortly fused with CuP; CuP 1; Pcu 1; A<sub>1</sub> 2, furcating at wing middle, anterior branch (A<sub>1</sub><sub>1</sub>) partly fused with Pcu after wing middle; A<sub>2</sub> 1. Hind tibia with two lateral spines in its distal half from the middle and with 10–12 apical spines. First metatarsomere larger than second one, with two latero-apical spines and 9–10 intermediate spines arranged in entire arc.

**Coloration** (Figs 20–24). Generally light yellow. Head laterally with transverse narrow brown stripe below eye on each side, weakly visible in female. Coryphe and metope light brown, with yellowish traces of larval sensory pits (pustules). Metope with reddish lateral margins. Rostrum black apically. Flagellum of antenna dark. Paranotal lobes of pronotum with brown patches. Mesonotum brown medially and at the corners. Female with red lateral stripes on pro- and mesonotum (Figs 20, 21). Ear-shaped process of precostal margin of fore-



Figs 27–31. *Togoda (Afromela) ernsti* sp.n., holotype, male genitalia structure. 27 — anal tube, penis, and connective, left lateral view; 28 — penis, right lateral view; 29 — pygofer, left lateral view; 30 — style, lateral view; 31 — anal tube, dorsal view. Abbreviations: a — process of aedeagus, e, f — processes of phallobase.

Рис. 27–31. *Togoda (Afromela) ernsti* sp.n., голотип, строение гениталий самца. 27 — анальная трубка, пенис и коннектив, слева, сбоку; 28 — пенис, справа, сбоку; 29 — пигофор, слева, сбоку; 30 — стилус, сбоку; 31 — анальная трубка, сверху. Сокращения: а — отросток эдегуса, е, f — выросты фаллобазы.

wing dark brown to black, with red stripes in female. Cells of precostal field of fore wings with large dark brown to black spots; cell below the claval apex completely black. Veins of fore wings reddish yellow, except radius and median black basally and on its furcation points and  $P_{cu}$  and  $A_1$  black at its median parts before fusion. Femora dark on its inner sides or fore and middle femora with large dark brown spots. Fore and middle tibiae with three black bands — basally, medially, and apically. Claws dark brown. Apices of leg spines black. Sternite III light yellow, sternites IV–VI yellowish brown, with dark brown to black hind margins, sternite VII yellowish brown. Male pygofer dark brown, with light yellow hind margins. Styles brown, with whitish basal parts.

**Male genitalia structure** (Figs 27–31). Anal tube elongate, three times as long as wide medially, narrowing apically in dorsal

view, with slightly convex medially lateral margins and weakly concaved apical margin (Fig. 31). Apex of anal tube turned downwards in lateral view (Fig. 27). Anal column short. Pygofer vertically elongate, with convex hind margins (Fig. 29). Penis curved, horse-shoe-shaped in lateral view, with a hook-shaped pointed subapical process on right side of aedeagus directed downwards (process a) (Fig. 28, a). Phallobase long, 2/3 of aedeagus length, with two narrow pointed processes on its right and left side (processes f and e) directed upwards (Figs 27, 28). Ventral phallobase lobe short, shifted to its left side. Connective large, with narrow elongate cup (Fig. 27). Style with nearly straight hind margin, widely rounded caudo-dorsal angle, and rounded protuberance under capitulum (Fig. 30).

Total length. Male — 5.4 mm. Female — 5.7 mm.

**Nymph** (Fig. 32). Light green, with wide white stripe



32



33

Figs 32–33. Preimaginal phase and type locality of *Togoda (Afromela) ernsti* sp.n. 32 — nymph; 33 — Little Switzerland Resort. Photos by E. Klimsa.  
Рис. 32–33. Преимагинальная стадия и типовое местообитание *Togoda (Afromela) ernsti* sp.n. 32 — личинка; 33 — курорт Маленькая Швейцария. Фото Э. Климса.

medio-dorsally across head and body margined by narrow black and orange stripes. Tibiae and tarsi whitish. Claws black. Abdominal apex with a patch of wax filaments.

**Etymology.** Species is named after the collector, Mr. Ernst Klimsa.

**Ecology.** Imagoes and nymphs were caught in the wooden patches surrounded by open places along the hiking trail running through the terrain on the hill (Fig. 33).

**Comparison.** The species differs from closely related *T. minima* Gnezdilov, 2025 from Mozambique by shorter metopial proboscis in lateral view [Gnezdilov, 2025: Fig. 5B] (Fig. 21), less convex hind margins of pygofer, longer anal tube, more exposed aedeagus, narrow, without claw, process on right side of phallobase (process e), and short ventral phallobase lobe [Gnezdilov, 2025: Fig. 10] (Figs 27–31).

#### *Togoda (Leoma) Gnezdilov, subgen.n.*

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Type species: *Togoda carinata* Gnezdilov, 2025.

**Diagnosis.** Metope with two sublateral carinae medially [Gnezdilov, 2025: Fig. 6G]. Postclypeus with high median carina [Gnezdilov, 2025: Figs 5D, 6H]. Fore wings narrow, without hypocostal plate, with 1/5–1/7 of its length behind apex of clavus in lateral view [Gnezdilov, 2025: Fig. 5D]. Hind wings well developed, tri-lobed, with wide remigial, remigio-vannal, and anal lobes, deep cubital cleft and indistinct vannal cleft (Fig. 34). Fore and middle femora flattened or nearly foliate.

**Etymology.** Subgeneric name is an amalgamation of «Leopold» and «Madagascar». Feminine in gender.

**Composition.** Only the type species.

**Comparison.** By the shape and venation pattern of hind wing it is close to *Afromela* subgen.n. differing by deeper cubital cleft and  $CuA_2$  not fused (without anastomosis, but with a transverse vein cua-cup) with CuP (Figs 26, 34).

#### *Togoda (Leoma) carinata* Gnezdilov, 2025

Fig. 34.

*Togoda carinata* Gnezdilov, 2025: 482, Figs 5C, D; 6H, G.

**Material.** Madagascar: holotype, ♀, «Madagascar Est / distr. Mananara — N. / Antanambe VII / Vadon et Peyrieras» [print with hand written date] // «Museum Paris / MNHN(EH): / 16570» [print] (MNHN).

**Amended description.** Hind wings well developed, nearly as long as fore wings, tri-lobed, with widely concaved costal margin, with wide remigial, remigio-vannal, and anal lobes, deep cubital cleft and indistinct vannal cleft. Hind wing vein branching sequence: R 2, furcating after wing middle and

coupling lobe; r-m 1; M 1; m-cua 1;  $CuA_2$ , furcating in its apical third; cua-cup 1; CuP 1; Pcu 1;  $A_1$  2, furcating at wing middle, anterior branch ( $A_{1,1}$ ) partly fused with Pcu after wing middle;  $A_2$  1.

## Discussion

Taking into consideration the taxonomic changes above currently the genus *Togoda* Melichar, 1906 comprises seven species in three subgenera as follows — *Togoda (Togoda)* Melichar, with three species limited in its distribution to Western Africa and Zanzibar Island from where *Togoda* sp. was recorded so far [Gnezdilov, 2025], *Afromela* subgen.n. — with two (or three) species known from Southern Africa, and monotypical *Leoma* subgen.n. — from Madagascar. More materials are needed to reveal the presence and distribution of the genus in Central (Congo Basin) and Eastern Africa as well as males are need to characterize fully the last subgenus.

*Afromela* subgen.n. and *Leoma* subgen.n. have the same pattern of hind wing shape and venation — wide anal lobe, deep cubital cleft and indistinct vannal cleft, cubitus anterior furcating ( $CuA_2$ ) and postcubitus simple (Pcu 1), which is close to those of *Trienopa* Signoret, 1860 [Gnezdilov, in press] (Figs 26, 34). *Togoda*

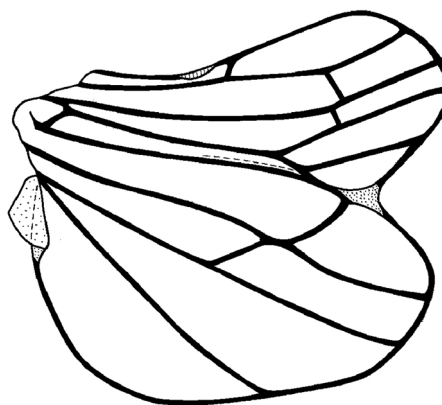


Fig. 34. *Togoda (Leoma) carinata* Gnezdilov, 2025, holotype, right hind wing.

Fig. 34. *Togoda (Leoma) carinata* Gnezdilov, 2025, голотип, правое заднее крыло.

(*Togoda*) Melichar well differs from both mentioned subgenera by smaller hind wing, with largest remigial lobe, CuA 3, and Pcu 1–2 (Figs 4, 5) [Gnezdilov, 2025, Fig. 7A].

Study of male genitalia structure of Trienopini is still in its initial stage as only several representatives of four genera are studied so far [Synave, 1957; Gnezdilov, 2007, 2025; Gnezdilov, in press]. In fact short phallobase known for the species of *Togoda* (*Togoda*) Melichar is recorded also for the genus *Trienopa* Signoret, 1860, e. g. *T. flavida* Signoret, 1860 [Gnezdilov 2007: Fig. 8], however, the last genus is characterized by flat metope, without proboscis [Gnezdilov, 2025: Fig. 3A]. The genus *Fritzruehlia* Schmidt, 1924, in particular, *F. gibbosa* (Lallemand, 1942), was illustrated by H. Synave, however, the phallobase margin was not indicated [Synave, 1957: Figs 28, 29]. Further studies of male genitalia structure of other species of the tribe including those of *Neotylana* Distant, 1909 are needed to clarify relationships of the genera and species.

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