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The first record of the genus *Cretapsylla* (Hemiptera: Psyllomorpha: Liadopsyllidae) in the Cretaceous Burmese amber

Первая находка рода *Cretapsylla* (Hemiptera: Psyllomorpha: Liadopsyllidae) в меловом бирманском янтаре

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KEY WORDS: Psylloidea, Liadopsyllidae, Burmese amber, Mesozoic, Cretaceous, morphology
КЛЮЧЕВЫЕ СЛОВА: Psylloidea, Liadopsyllidae, бирманский янтарь, мезозой, мел, морфология

ABSTRACT. *Cretapsylla asperantenna* **sp.n.** and *C. kruglikovi* **sp.n.** represent the first discovery of this genus in Cretaceous Burmese amber. The generic diagnosis is amended, and a key to species is provided. Some characters of Cretaceous amber psyllids are briefly discussed.

РЕЗЮМЕ. *Cretapsylla asperantenna* **sp.n.** и *C. kruglikovi* **sp.n.** — первая находка этого рода в меловом бирманском янтаре. Диагноз рода дополнен, и дана таблица для определения видов. Кратко обсуждаются некоторые признаки листоблошек из меловых янтарей.

Introduction

Psyllids (Hemiptera: Psyllomorpha) are tiny sap-sucking phytophages. There were no modern families of psyllids in the Mesozoic. Some extinct families, including Liadopsyllidae Martynov, 1927, along with modern ones, are assigned to Psylloidea s.l. [Ouvrard *et al*., 2010; Shcherbakov, 2020]. The genus *Cretapsylla* Shcherbakov, 2020 (Liadopsyllidae), was known from Lower Cretaceous Lebanese amber and Upper Cretaceous New Jersey amber [Ouvrard *et al*., 2010]. The two new *Cretapsylla* species described below represent the first record of this genus in Burmese amber.

Material and methods

Burmese amber is mined in the Hukawng Valley, northern Myanmar. The amber mining horizon belongs to the Upper Albian – Lower Cenomanian; radioisotope dating has been established at 98.79 ± 0.62 Ma. [Shi *et al*., 2012]. Four pieces of Burmese amber were purchased on ebay.com by Ilya Minaev and Roman Kruglikov and donated to the collection of the Paleontological Institute, Russian Academy of Sciences (PIN). The pieces with inclusions were processed using a rotary saw and a polishing machine [Sidorchuk, Vorontsov, 2018]. A Nikon SMZ25 equipped with a Nikon DS-Ri2 digital camera and Nikon E-800 with an Olympus OM-D E-M10 II digital camera were used to obtain images, which were focus-stacked in Helicon Focus Pro 7.0.2. Tescan Vega electron microscope was used to obtain images of uncoated modern psyllids from the collection of the Zoological Institute RAS, St. Petersburg (ZIN).

Systematic paleontology

Order Hemiptera Linnaeus, 1758
Suborder Sternorrhyncha Amyot et Audinet-Serville, 1843
Infraorder Psyllomorpha Becker-Migdisova, 1962
Superfamily Psylloidea Latreille, 1807, s.l.
Family Liadopsyllidae Martynov, 1927, s.str.
Cretapsylla Shcherbakov, 2020

TYPE SPECIES: *Liadopsylla apedetica* Ouvrard, Burckhardt et Azar, 2010.

AMENDED DIAGNOSIS. Labium with base located behind procoxae and three segments distinct, distal one shortest and straight. Metabasitarsus with rows of thick setae on lateral edges of plantar side. Forewing: R very short; CuA 0.1–0.3x as long as M+CuA; M slightly curved.

COMPOSITION. *C. apedetica* (Ouvrard, Burckhardt et Azar, 2010), *C. hesperia* (Ouvrard et Burckhardt, 2010)**,** *C. asperantenna* **sp.n.**, *C. kruglikovi* **sp.n.**

COMPARISON. Differs from *Stigmapsylla* Shcherbakov, 2020 in very short CuA; from *Liadopsylla* Handlirsch, 1921 in very short R, CuA and also short M1+2 and M3+4; from *Amecephala* Drohojowska, Szwedo, Müller et Burckhardt, 2020 in very short R, CuA, relatively shorter M and longer M+CuA.

DISTRIBUTION. Early Cretaceous (Barremian) amber of Lebanon, mid-Cretaceous (Late Albian/Early Cenomanian) amber of Myanmar and Late Cretaceous (Turonian) amber of New Jersey.

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Cretapsylla asperantenna **sp.n.**
Figs 1–13, 22.

MATERIAL. Holotype, ♂, PIN 5608/332. Paratypes: PIN 5608/597a, sex unknown; 5608/598, ♀. Burmese amber.

DIAGNOSIS. Head anterior margin uniformly weakly convex or with small medial incision; anterior margin of compound eyes distant to head anterior margin; head posterior margin moderately concave; coronal suture developed, but poorly visible; discal foveae small and shallow. Antennae weakly

Figs 1–13. *Cretapsylla asperantenna* **sp.n.** 1, 3, 6, 9, 12 — holotype, male, PIN 5608/332; 2, 4, 5, 8, 10, 11, 13 — paratype, female, PIN 5608/598; 7 — paratype, sex unknown, PIN 5608/597a. 1, 2 — habitus, dorsally and laterally (1 — photograph by Ilya Minaev); 3, 4 — head, dorsally; 5 — left antenna, ventrally; 6 — apex of the left antenna, frontally; 7, 8 — labium, laterally; 9 — apex of the labium, frontally; 10 — hind coxae, ventrally; 11 — left hind leg, laterally; 12 — male genitalia, dorsolaterally; 13 — female genitalia, dorsally, circumanal ring of wax pores marked by arrowhead. Scale bars: 1, 2 — 0.5 mm; 3, 5–7, 12 — 0.1 mm; 4, 8–11, 13 — 0.05 mm.

Рис. 1–13. *Cretapsylla asperantenna* **sp.n.** 1, 3, 6, 9, 12 — голотип, самец, PIN 5608/332; 2, 4, 5, 8, 10, 11, 13 — паратип, самка, PIN 5608/598; 7 — паратип, пол неизвестен, PIN 5608/597a. 1, 2 — общий вид дорсально и латерально (1 – фотография Ильи Минаева); 3, 4 — голова, дорсально; 5 — левая антенна, вентрально; 6 — вершина левой антенны, фронтально; 7, 8 — лабиум латерально; 9 — вершина лабиума, фронтально; 10 — задние тазики, вентрально; 11 — левая задняя нога, латерально; 12 — гениталии самца, дорсолатерально; 13 — гениталии самки, дорсально, вершиной стрелки отмечено циркуманальное кольцо восковых пор. Масштаб: 1, 2 — 0,5 мм; 3, 5–7, 12 — 0,1 мм; 4, 8–11, 13 — 0,05 мм.

clavate at apex; pedicel nearly as long as scape; antennomere 5 ~1.5x longer than 6; rows of rhinaria on antennomeres 3, 4. Pronotum anterior margin moderately concave; mesoscutellum posterior margin straight. Forewing: CuA ~0.3x as long as M+CuA; CuA2 weakly recurrent; A1 nearly straight, distant to wing posterior margin.

COMPARISON. Distinct from all other species in longer CuA, shorter M+CuA; from *C. apedetica* and *C. hesperia* in slightly clavate antennal apex; from *C. apedetica* in head anterior margin weakly convex; from *C. hesperia* in CuA2 weakly recurrent.

DESCRIPTION. *Head.* Head anterior margin uniformly weakly convex or with small medial incision, posterior margin moderately concave; coronal suture poorly developed, and sometimes not visible; discal foveae small and shallow; compound eyes rounded; median ocellus shifted ventrally; lateral ocelli close to compound eyes, not shifted posteriorly (Figs 3, 4). Antennae slightly shorter than head+thorax, 10-segmented; scape base located ventrally; pedicel ~ as long and ~0.6x as wide as scape; flagellum 0.5x as wide as pedicel; antennomere 3 longest (Fig. 5); subapical rhinaria at least on antennomeres 4, 5, 6, 8, 9; subapical rhinarium on antennomere 4 enlarged in male; rows of rhinaria on antennomeres 3, 4 (Figs 5, 6); probably sparse additional rhinaria on antennomeres 5–7; last antennomere with two apical setae of equal length. Labium base located behind procoxae; labium directed ventrally or ventrocaudally, possibly 4-segmented, but only 3 segments distinguishable; 2nd segment longest and obliquely annulated with ~20 distinguishable annulations; 4th segment shortest and straight (not bent); labial segments 2–4 ratio: 8:2:1 (Figs 7–9).

Thorax. Pronotum ~0.25x as long as wide, with anterior margin moderately convex and posterior margin moderately concave; mesoprescutum mostly not covered by pronotum, ~0.6x as wide as pronotum in most wide section; mesoscutum 0.5x as long as wide and as wide as pronotum; mesoscutellum rectangular, ~0.5x as long as wide, with posterior margin straight (Fig. 1).

Legs. Legs relatively long; all tibiae with rows of setae and apical thick setae; procoxae adjacent to each other; probasitarsus ~ as long as prodistitarsus; mesobasitarsus 0.9x as long as mesodistitarsus; metacoxae adjacent to each other, each one enlarged and rotated at 45° to body axis (Fig. 10); apex of metatibia with several thick setae and ~10 apical+subapical weakly sclerotized spurs; largest spur on outer side; metabasitarsus ~1.1x as long as metadistitarsus, with two rows of 5+6 thick setae on lateral edges of plantar side (Fig. 11).

Wings. Forewing (Fig. 22) ~2.3x as long as wide; pterostigma present, large, dark, delineated proximally by Sc; forewing tip at M1+2 apex; A1 thick, nearly straight, rather distant from wing posterior margin; CuP straight; apex of clavus at ~0.6 wing length; coupling fold with rows of denticles; R+M+CuA fork at 0.2, R fork at 0.3, M+CuA fork at 0.5, CuA fork at 0.6, M fork at 0.7 wing length; R very short; RA long; RP slightly curved distally; M only slightly curved; M fork rather narrow; M1+2 very slightly curved, M3+4 nearly straight; CuA ~0.3x as long as M+CuA and nearly as long as cu1 width; CuA2 weakly recurrent. Hind wing poorly visible; costal margin with one strong coupling seta, proximal row of ~5 long setae and small distal row of at least 5 short thick setae.

Abdomen. Female tergite VIII enlarged, with pair of large rounded processes (Fig. 13); female with 3 pairs of small oval wax plates on segments IV–VI ventrally; male probably covered with wax (Fig. 1), but wax plates indistinguishable.

Male genitalia. Tergite and sternite IX separated; tergite IX fused to segment X; segment X directed dorsocaudally, long, with lateral edges slightly turned inward, its apex possibly covered with wax; anus subapical; tergite IX large, scoop-shaped; parameres large, lobe-shaped, slightly widened apically; phallobase elongated and distinctly articulated with aedeagus; aedeagus ~0.5x as wide as phallobase; apex of aedeagus distorted (Fig. 12).

Female genitalia. Very long, consists of tergite IX + segment X (female proctiger), sternite IX and ovipositor; tergite IX + segment X longer than valvulae, with narrow anus surrounded by oval circumanal ring of wax pores proximally and lateral rows of denticles distally; sternite IX shorter than valvulae, with lateral rows of denticles distally; lateral valves and valvulae distinct, but apexes distorted (Figs 2, 13).

Measurements (mm). Male. Total length: 2.9. Head length 0.2; head width 0.6. Thorax length 0.77; thorax width 0.5; abdomen length (without genitalia) 1.14; abdomen width 0.6. Forewing length: 2; forewing width: 0.87. Antennomeres 1–10 length: 0.09, 0.08, 0.3, 0.17, 0.14, 0.08, 0.06, 0.05, 0.05; 0.03; apical setae 0.04. Tarsomere length: probasitarsus 0.15 and prodistitarsus 0.17; mesobasitarsus 0.13 and mesodistitarsus 0.15; metabasitarsus 0.2 and metadistitarsus 0.13.

Female. Total length: 3. Head length 0.15; head width 0.38. Thorax length 0.77; thorax width 0.54; abdomen length (without genitalia) 0.85; abdomen width 0.45. Ovipositor length: 1 (apex distorted). Forewing length: 1.9; forewing width: 0.7. Antennomeres 1–10 length: 0.06, 0.06, 0.17, 0.1, 0.08, 0.07, 0.06, 0.05, 0.04; 0.03; apical setae 0.03. Tarsomere length: probasitarsus 0.09 and prodistitarsus 0.09; mesobasitarsus 0.09 and mesodistitarsus 0.13; metabasitarsus 0.14 and metadistitarsus 0.1.

ETYMOLOGY. From the Latin "*asper*" meaning uneven, rough and "*antenna*", for the uneven sculpture of the antennal cuticle and the presence of rows of rhinaria.

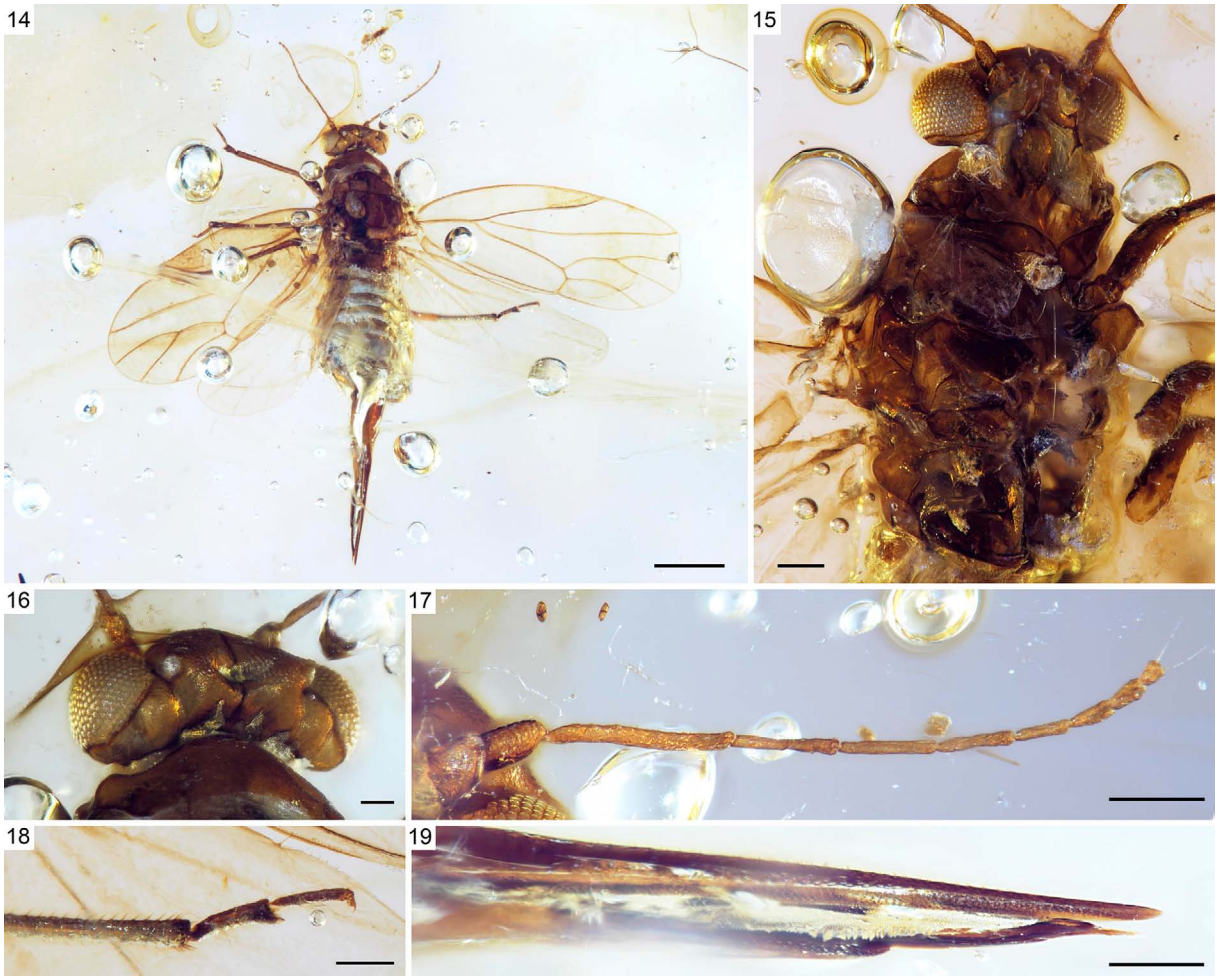
Cretapsylla kruglikovi **sp.n.**
Figs 14–19, 23–26.

MATERIAL. Holotype, ♀, PIN 5608/599a; Burmese amber.

DIAGNOSIS. Head anterior margin weakly convex; anterior margin of compound eyes close to head anterior margin; head posterior margin strongly concave; coronal suture well-developed; discal foveae wide and deep. Antennae weakly clavate at apex; pedicel nearly as long as scape; antennomeres 5, 6 of equal length; row of rhinaria on antennomere 4. Pronotum anterior margin strongly convex medially; mesoscutellum with small posterior incision. Forewing: CuA ~0.1x as long as M+CuA; CuA2 distinctly recurrent; A1 concave, adjacent to wing posterior margin.

COMPARISON. Differ from all other species in distinctly recurrent CuA2, anterior margin of compound eyes close to head anterior margin; from *C. apedetica* in head anterior margin weakly convex; from *C. asperantenna* **sp.n.** in large and deep discal foveae, anterior margin of compound eyes close to head anterior margin, posterior margin of mesoscutellum with medial incision.

DESCRIPTION. *Head.* Head anterior margin uniformly weakly convex, posterior margin notably concave; coronal suture well-developed; discal foveae large and deep; compound eyes rounded; median ocellus shifted ventrally; lateral ocelli on small tubercles, close to compound eyes, not shifted posteriorly (Fig. 16). Antennae slightly shorter than head+thorax, 10-segmented; scape base located ventrally; pedicel ~ as long and ~0.7x as wide as scape; flagellum 0.5x as wide as pedicel; antennomere 3 longest (Fig. 17); subapical rhinaria at least on antennomeres 4, 5, 6, 8, 9, two subapical rhinaria on antennomere 4; row of two rhinaria on antennomere 4; last antennomere with two apical setae of equal length. Labium distorted.



Figs 14–19. *Cretapsylla kruglikovi* **sp.n.**, holotype, female, PIN 5608/599a: 14 — habitus, dorsally; 15 — forebody, ventrally; 16 — head, dorsally; 17 — right antenna, ventrally (horizontally reflected); 18 — right hind leg, dorsally; 19 — female genitalia, dorsally. Scale bars: 14 — 0.5 mm; 15, 17–19 — 0.1 mm; 16 — 0.05 mm.
Рис. 14–19. *Cretapsylla kruglikovi* **sp.n.**, голотип, самка, PIN 5608/599a: 14 — общий вид, дорсально; 15 — голова и грудь, вентрально; 16 — голова, дорсально; 17 — правая антенна, вентрально (отражено по горизонтали); 18 — правая задняя нога, дорсально; 19 — гениталии самки, дорсально. Масштаб: 14 — 0,5 мм; 15, 17–19 — 0,1 мм; 16 — 0,05 мм.

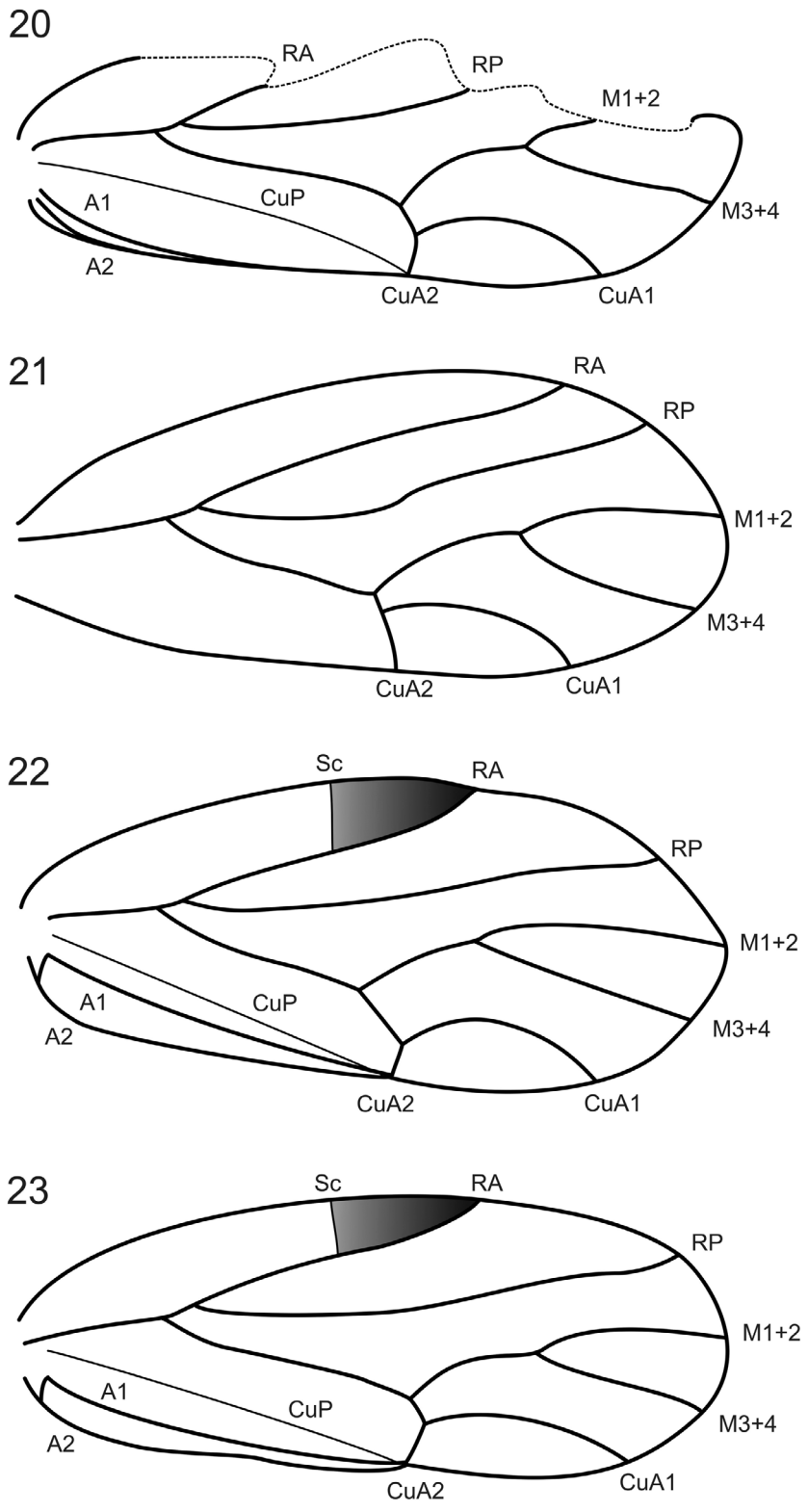
Stylet bundle partially decoupled (Fig. 15).

Thorax. Pronotum ~0.2x as long as wide, with anterior margin strongly convex medially and posterior margin moderately concave; mesoprescutum mostly not covered by pronotum, ~0.6x as wide as pronotum in most wide section; mesoscutum 0.5x as long as wide and ~ as wide as pronotum; mesoscutellum rectangular, ~0.5x as long as wide, with small incision on posterior margin (Fig. 14).

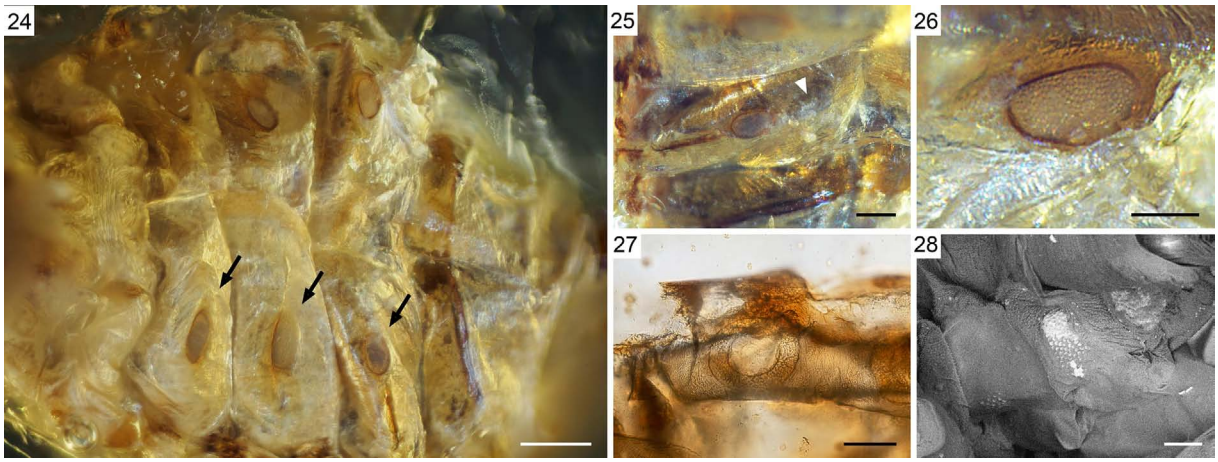
Legs. Legs relatively long; all tibiae with rows of setae and apical thick setae; procoxae adjacent to each other; probasitarsus ~0.6x as long as prodistitarsus, its apex slightly bulged, with short setae; mesobasitarsus 0.8x as long as mesodistitarsus; metacoxae adjacent to each other, but mostly destroyed; apex of metatibia with several thick setae; metabasitarsus with rows of thick setae on lateral edges of plantar side and several slender setae on upper side; metadistitarsus ~0.9x as long as metabasitarsus, with two slender apical setae (Figs 15, 18).

Wings. Forewing (Figs 14, 23) ~2.6x as long as wide; pterostigma present, large, dark, delineated proximally by Sc; forewing tip at M1+2 apex; A1 thick, concave, adjacent to wing posterior margin; CuP nearly straight, very slightly curved proximally; apex of clavus at 0.55 wing length; coupling fold with rows of denticles; R+M+CuA fork at 0.2, R fork at 0.25, M+CuA fork at 0.55, CuA fork at 0.6 and M fork at 0.75 wing length; R very short; RA long; M slightly curved; M fork rather narrow; M1+2 very slightly curved, M3+4 nearly straight; CuA ~0.1x as long as M+CuA and nearly 0.5x as long as cu1 width; CuA2 distinctly recurrent. Hind wing (Fig. 14) 0.85x as long as forewing and 3.2x as long as wide; hind wing tip at RP apex; costal margin with one strong coupling seta, proximal row of ~5 long setae and small distal row of at least 5 short thick setae; R fork relatively narrow; M unforked, branches off from R+M; CuA forked, CuA1 and CuA2 each nearly straight; CuP straight, A1 poorly visible, clavus nearly triangular; apex of clavus at 0.45, strong coupling seta at 0.55, R+M fork at 0.3, R fork at 0.35, CuA fork at 0.55 wing length.

Abdomen. Female tergite VIII slightly enlarged, with pair of small rounded processes; female with 3 pairs of oval wax plates on abdominal segments IV–VI ventrally (Figs 24–26). Body possibly covered with waxy coating (Fig. 25).



Figs 20–23. Forewing venation of *Cretapsylla* spp.: 20 — *C. apedetica* (Ouvrard, Burckhardt et Azar, 2010), redrawn from Ouvrard *et al*. [2010]; 21 — *C. hesperia* (Ouvrard et Burckhardt, 2010), redrawn from Ouvrard *et al*. [2010]; 22 — *C. asperantenna* **sp.n.**; 23 — *C. kruglikovi* **sp.n.**
Рис. 20–23. Жилкование крыла у видов рода *Cretapsylla*: 20 — *C. apedetica* (Ouvrard, Burckhardt et Azar, 2010), по Ouvrard *et al*. [2010]; 21 — *C. hesperia* (Ouvrard et Burckhardt, 2010), по Ouvrard *et al*. [2010]; 22 — *C. asperantenna* **sp.n.**; 23 — *C. kruglikovi* **sp.n.**



Figs 24–28. Ventral abdominal wax pores of psyllids: 24–26: *Cretapsylla kruglikovi* **sp.n.**, holotype, female, PIN 5608/599a: 24 — paired abdominal wax plates, marked with arrows; 25 — wax plate VI (right) and putative waxy secretions, marked with arrowhead; 26 — wax plate VI (left); 27 — ring-shaped compound wax pore III (left) of the male of *Dingla shagria* Szwedo et Drohojowska, 2020 (Miralidae) from Burmese amber, PIN 5608/288; 28 — fields of wax pores of the recent psyllid *Togepsylla matsumurana* Kuwayama, 1949 (from the collection of ZIN). Scale bars: 24 — 0.1 mm; 25, 27 — 0.05 mm; 26, 28 — 0.025 mm.
Рис. 24–28. Вентральные брюшные восковые поры листоблошек: 24–26: *Cretapsylla kruglikovi* **sp.n.**, голотип, самка, PIN 5608/599a: 24 — парные пластинки восковых пор, помечены стрелками; 25 —пластинка восковых пор VI сегмента (правая) и предполагаемые восковые выделения, помечены вершиной стрелки; 26 — восковая пластинка VI сегмента (левая); 27 — кольцевидная сложная восковая пора III сегмента (левая) самца *Dingla shagria* Szwedo et Drohojowska, 2020 (Miralidae) из бирманского янтаря, PIN 5608/288; 28 — поля восковых пор самца современной листоблошки *Togepsylla matsumurana* Kuwayama, 1949 (из коллекции ЗИН). Масштаб: 24 — 0,1 мм; 25, 27 — 0,05 мм; 26, 28 — 0,025 мм.

Female genitalia. Very long, consists of tergite IX + segment X (female proctiger), sternite IX and ovipositor; tergite IX + segment X slightly longer than valvulae, with rows of denticles distally; sternite IX shorter than valvulae, with rows of denticles distally; lateral valves and two pairs of valvulae distinct; apex of ovipositor thin, acute and slightly curved (Fig. 19).

Measurements (mm). Total length: 3.9. Head length 0.15; head width 0.46. Thorax length 0.82; thorax width 0.56; abdomen length (without genitalia) 0.94; abdomen width 0.66. Ovipositor length: 1.3. Forewing length: 1.9; forewing width: 0.77. Antennomeres 1–10 length: 0.07, 0.07, 0.2, 0.11, 0.1, 0.08, 0.06, 0.05, 0.04; 0.025; apical setae 0.05. Tarsomere length: probasitarsus 0.08 and prodistitarsus 0.14; mesobasitarsus 0.1 and mesodistitarsus 0.12; metabasitarsus 0.16 and metadistitarsus 0.14.

ETYMOLOGY. In honor of Roman Kruglikov, who kindly donated the holotype of this species to PIN.

KEY TO SPECIES OF THE GENUS *CRETAPSYLLA*:

1. CuA ~0.3x as long as M+CuA; A1 distant from wing posterior margin ..... *C. asperantenna* **sp.n.**
– CuA ~0.1x as long as M+CuA; A1 adjacent to wing posterior margin 2
2. Anterior margin of compound eyes close to head anterior margin; antennae weakly clavate at apex; pedicel nearly as long as scape; CuA2 distinctly recurrent .... *C. kruglikovi* **sp.n.**
– Anterior margin of compound eyes distant to head anterior margin; antennae not clavate at apex; pedicel distinctly longer than scape; CuA2 only slightly recurrent or directed slightly distally 3
3. CuA distinctly shorter than CuA2; CuA2 directed slightly distally ..... *C. hesperia* (Ouvrard et Burckhardt, 2010)
– CuA nearly as long as CuA2; CuA2 slightly recurrent ....*C. apedetica* (Ouvrard, Burckhardt et Azar, 2010)

Discussion

Thick setae were found on the apices of all the tibiae of the new species (Figs 11, 18). In addition, *C. asperantenna* **sp.n.** possess weakly sclerotized spurs on the apices of the hind tibiae (Fig. 11). Thick apical setae were previously found in psyllids from Cretaceous amber [Ivanov *et al*., 2025], but the presence of sclerotized spurs is shown for the first time. Rows of thick setae were found on the lateral edges of the plantar side of the metabasitarsus (Fig. 11). The same was earlier noted in *Cretapsylla apedetica* (Ouvrard, Burckhardt et Azar, 2010) and *Pictala scorpioides* Ivanov, Vorontsov et Shcherbakov, 2024 (Miralidae) [Ouvrard *et al*., 2010; Ivanov *et al*., 2025]. The armature of hind legs indicates jumping adaptation. The hind coxae of most modern psyllids are hypertrophied and rotated relative to the body axis by 90° [Luo *et al*., 2017]. In *C. asperantenna* **sp.n.** the hind coxae are quite large and rotated by 45° (Fig. 10), which may indicate an intermediate step in their modification.

In the labium of *Cretapsylla*, three segments are distinguishable, but probably another (1st) segment is hidden between the procoxae. The 2nd labial segment is the longest and annulated (Figs 7, 8). Previously, a similar structure was described in Miralidae [Ivanov *et al*., 2025]. The rows of setae in the proximal part of the labium described in *C. apedetica* [Ouvrard *et al*., 2010] may in fact also represent an annular structure.

Wax plates are found on the ventral side of the abdomen of females of the new species (Fig. 24). The dense arrangement of pores (Fig. 26) resembles that in the wax plates of whiteflies, and moreover, rows of setae on the tibiae may have similarly helped distribute wax over the body [Navone, 1987; R. Rakitov pers. comm.]. Among modern psyllids, wax pores on the pregenital abdominal segments were found in *Togepsylla* Kuwayama, 1931 (Fig. 28), and among extinct ones — in Miralidae (Fig. 27) [Luo *et al*., 2017; Ivanov *et al*., 2025]. All three types of wax pore areas differ in structure (Figs 26–28), but their position on the abdomen is similar: on segments IV–VI in *Cretapsylla* and *Togepsylla*, and on segments III–V or IV–VI in Miralidae. Whitish substance on the body surface of females and males of new species (Figs 1, 25) may be a remnant of the waxy coating. The new discovery indicates widespread use of wax, as well as structural diversity of wax-producing structures in extinct and extant psyllids.

A male of *Cretapsylla* was discovered for the first time. The genitalia of both sexes resemble those of modern forms [Hodkinson, White, 1979; Yang, Chang, 2000]. The female anus is located proximally on the proctiger and is surrounded by a narrow circumanal ring of wax pores (Fig. 13), as in recent psyllids [Hodkinson, White, 1979].

These morphological data indicate that Liadopsyllidae from Cretaceous amber can be considered probable ancestors of modern psyllids.

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