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Notes on some A. JACOBI's Species of Auchenorrhynchous Insects described from North-East China

(Homoptera)

With 14 Figures

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Summary. The materials of some species of Auchenorrhynchous insects described by A. JACOBI from North-East China and preserved in Staatliches Museum für Tierkunde Dresden were reinvestigated. As a result the following synonymy is stated: *Aphrophora costalis* MATS. (= *A. consobrina* JAC., syn. n.); *Petalocephala engelhardti* KUSN. (= *Tlasia borealis* JAC., syn. n.); *Kolla atramentaria* (MOTSCH.) (= *Tettigonia semiglauca* LETH., syn. n.; = *Kolla mandschurica* JAC., syn. n.); *Limotettix striola* (FALL.) (= *Euscelis pictifacies* JAC., syn. n.); *Drabescus nuchalis* (JAC.), comb. n. (= *Selenocephalus nuchalis* JAC.; = *Drabescus striatus* ANUFR., syn. n.); *Batracomorphus allionii* (TURT.) (= *B. angustior* JAC., syn. n.); *Iassus lateralis* (MATS.) (= *Batracomorphus laniarius* JAC., syn. n.). Male genitalia of *Kutara brunnescens* DIST. earlier confused with *Drabescus nuchalis* (JAC.) are described. Lectotypes and paralectotypes of some species under study are designated. New combination *Handianus (Usuironus) limbicosta* (JAC.) for *Athysanus limbicosta* JAC. is introduced; the key to species of the subgenus *Usuironus* ISH. is given.

In 1943 the results of the investigation of some Auchenorrhynchous insects collected by W ALIN in 1938–40 near Harbin were published by A. JACOBI. He listed 26 species, 16 of them being described for the first time. Nowadays reinvestigation of these materials became necessary because of a considerable progress in taxonomic study of East Asia Auchenorrhynchous insects. This paper presents the results of studying the part of ALIN's collection kept in Staatliches Museum für Tierkunde Dresden which became possible due to Dr. R. EMMRICH's kind permission. The species are listed under the same numbers as in JACOBI's work (1943). Lectotypes of some species are designated here. Specimens mentioned by A. JACOBI but bearing no type labels in the collection are supplied with red labels „Paralectotypus. ANUFRIEV design., 1978" The following abbreviations are used to denote places where the materials mentioned in the paper are kept: GSU – Gorky State University, Gorky, USSR; ZIN – Zoological Institute, USSR Academy of Sciences, Leningrad, USSR; ZM – Zoological Museum of Moscow State University, Moscow, USSR; SMTD – Staatliches Museum für Tierkunde Dresden, DDR.

5. **Aphrophora intermedia** UHLER, 1896 (= *A. mandschurica* JACOBI, 1943, partim).

In the *A. mandschurica* type series two species are mixed – *A. intermedia* and *A. alni* (FALL.). Since synonymy of *A. intermedia* and *A. mandschurica* was stated by J. VIL-

BASTE (1968) and accepted in J. NAST's catalogue (1972) the female specimen with the labels „Gaolinzsy; Manshukuo; leg. W ALIN, 3.7 1939" „Typus" „1942; 1" „coll. A. JACOBI" (SMTD) corresponding to *A. intermedia* in VILBASTE's interpretation was designated here as *A. mandschurica* lectotype. The male collected in Maoerschan (paralectotype – GSU) also belongs to *A. intermedia*. The male from Gaolinzsy (paralectotype – SMTD) and the female from Maoerschan (paralectotype – GSU) belong to *A. alni*.

The main differences between *A. alni* and *A. intermedia* are

A. alni (FALL.)	*A. intermedia* UHL.
(For male genitalia drawings see LEQUESNE 1965, VILBASTE 1971).	(For male genitalia drawings see VILBASTE 1968).
Smaller and more slender species (for measurements see table 1).	Larger and more robust species (for measurements see table 1).
Light oblique band of forewings diffusely bordered anteriorly with dark on clavus.	Light oblique band of forewings distinctly bordered anteriorly with dark including clavus.
Male genital plates with broad base, noticeably narrowing towards apex; their inner apical angle not rounded.	Male genital plates with nearly parallel sides, widely rounded at apex.
Penis with long shaft, its length being more then twice its width.	Penis with short shaft, its length and width being nearly equal.

Table 1. Dimensions of *Aphrophora alni* (FALL.) and *A. intermedia* UHL. from Maritime Territory specimens (in mm). 10 specimens of each sex were measured, the averages are given in brackets.

		Body lenght to wings apex	The largest body width	Length-width proportion
A. alni	♂	9.0–9.6 (9.29)	3.5–3.8 (3.67)	2.42–2.67 (2.53)
	♀	9.1–10.6 (9.87)	3.7–4.4 (3.95)	2.39–2.63 (2.50)
A. intermedia	♂	9.1–10.2 (9.71)	3.9–4.3 (4.06)	2.32–2.45 (2.39)
	♀	9.8–10.8 (10.38)	4.0–4.5 (4.28)	2.28–2.51 (2.40)

7 **Aphrophora costalis** MATSUMURA, 1903 (= *A. consobrina* JACOBI, 1943, **syn. n.**).

JACOBI's specimens completely fit in MATSUMURA's description and VILBASTE's later interpretation (1968, 1971) of the species.

Material examined. The male with the labels „Sjaolin, Manshukuo; leg. W ALIN, 30.7 1939" „Typus" „1942; 1" „coll. A. JACOBI" „*consobrina* JAC." (SMTD) designated by me as lectotype; the male and the female from Maoerschan (paralectotypes – GSU).

8. **Cnemidanomia lugubris** (LETHIERRY, 1876) (= *Ptyelus colonus* JACOBI, 1943).

The synonymy was stated by J. VILBASTE (1968) who also published drawings of male genitalia for this species. The female with the labels „Weichache; Manshukuo; leg. W ALIN, 14/7, 1939" „Typus" „1942; 1" „coll. A. JACOBI" „*colonus* JAC." (SMTD) designated here as lectotype of *Ptyelus colonus* completely corresponds to *Cnemidanomia lugubris* in VILBASTE's (1968) interpretation.

11. **Petalocephala engelhardti** KUSNEZOV, 1931 (= *Tlasia borealis* JACOBI, 1943, **syn. n.**).

The synonymy was revealed as a result of careful comparison of KUSNEZOV's and

JACOBI's type specimens. There is no description of male genitalia of this species in literature, so it is given below (drawings see in ANUFRIEV 1978).

Male genitalia. Pygophore lobes with slightly S-like curved distant processes branching from caudo-ventral angle. Genital plates with inner sides closed, fused together at the base, considerably protruding beyond posterior margin of pygophore. Styles widening to truncated apex whose ventro-medial angle is somewhat tipered. Penis flattened on the sides, supplied with a pair of arched projections arising near midlength. Gonopore subapical, disposed from penis apex to bases of projections.

Material examined. All KUSNEZOV's type series specimens (ZIN) mentioned in his work (1931); the male with the label „Владивостокский округ, Шкотовский р-н, Майхинское лесничество, 8. 6. 1928, Шаблиовский" here designated as lectotype of *Petalocephala engelhardti*. The male with the labels „Sjaolin, Manshukuo; leg. W ALIN, 14. 5. 1939" „1942; 1" „Typus" „coll. A. JACOBI" „Staatl. Museum für Tierkunde, Dresden" „*borealis* JAC." here designated as lectotype of *Tlasia borealis* (SMTD); the female from Maoerschan (paralectotype, SMTD).

Distribution. Southern parts of Amur Land and Soviet Maritime Territory, North-Eastern China (KUSNEZOV 1931, JACOBI 1943, ANUFRIEV 1978).

13. **Kolla atramentaria** (MOTSCHULSKY, 1859) (= *Tettigonia semiglauca* LETHIERRY, 1876, **syn. n.**; *Kolla lukjanovitshi* KUSNEZOV, 1929, **syn. n.**; = *Kolla mandschurica* JACOBI, 1943, **syn. n.**; *Kolla, Ishidaella albomarginata* auct. japon., non SIGNORET, 1853).

The synonymy is stated as a result of study of the type series of *Kolla lukjanovitshi* (ZIN) and lectotype of *K. mandschurica* (SMTD) designated by D. YOUNG. Besides vast materials from the Siberia and the Soviet Far East (Transbaicalia, Amur Land, Khabarovsk Region, Sakhalin, Southern Kurile Islands) was looked through and the synonymy indicated earlier (ISHIHARA 1967, 1971; ANUFRIEV 1978) was accepted. Types investigated completely correspond to ISHIHARA's (1971) and ANUFRIEV's (1978) interpretation of the species.

17 **Limotettix striola** (FALLÉN, 1806) (= *Euscelis pictifacies* JACOBI, 1943, **syn. n.**).

The specimens from the type series of *Euscelis pictifacies* correspond to *Limotettix striola* in the interpretation of H. RIBAUT (1952), A. F. EMELJANOV (1966), J. VILBASTE (1973), G. A. ANUFRIEV (1978) and others.

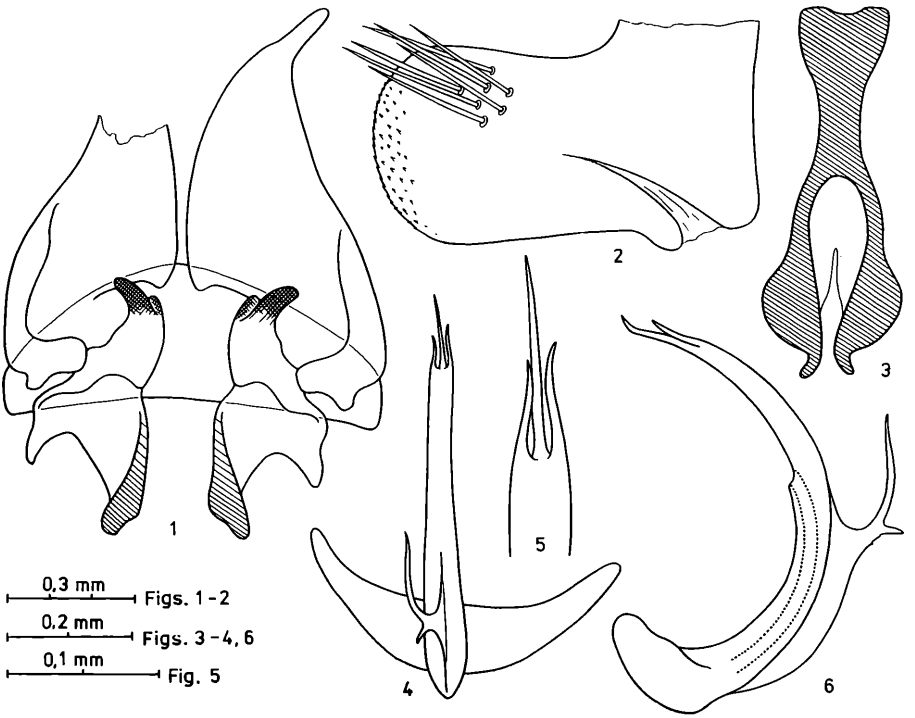
Material studied. The male specimen with the labels „Charbin, Manshukuo; leg. W ALIN, 17 8. 1939" „Typus" „Staatl. Museum für Tierkunde, Dresden" „*Euscelis pictifacies* JAC." „1942; 3" (SMTD) is here designated as lectotype of *Euscelis pictifacies*. Two males and one female (SMTD) as well as two males and one female (GSU) with the same locality labels are paralectotypes.

EMELJANOV's (1966) interpretation of *Euscelis pictifacies* is not correct, it should belong to *Limotettix intricatus* ANUFRIEV, 1978.

18. **Matsumurella praesul** (HORVATH, 1899) (= *Allygus praestans* JACOBI, 1943).

This synonymy was stated by the author (ANUFRIEV 1971c). JACOBI's materials completely fit in EMELJANOV's (1962), VILBASTE's (1968) and ANUFRIEV's (1971c, 1978) interpretation of the species.

Material examined. The male specimen with the labels „Gaolinzsy; Manshukuo; leg. W. ALIN, 14. 7 1940" „Typus" „coll. A. JACOBI" „Staatl. Museum für Tierkunde,



Figs. 1–6. *Kutara brunnescens* DIST. (type).
1 genital valve, genital plates and styles from inside – 2: pygophore lobe – 3: connective – 4: penis from above – 5: apical part of penis from above – 6: penis from side.

Dresden" „1942; 3" „18" *„Allygus praestans* JAC." (SMTD) is here designated as lectotype of *Allygus praestans*. The male from Maoerschan (SMTD) is paralectotype.

19. **Drabescus nuchalis** (JACOBI, 1943), **comb. n.** (= *Selenocephalus nuchalis* JACOBI, 1943; = *Kutara brunnescens*: VILBASTE, 1968, non DISTANT, 1908; = *Drabescus striatus* ANUFRIEV, 1971, **syn. n.**).

The specimen with the abdomen lost bearing the labels „Tschen, Manshukuo; leg. W ALIN, 28. 7 1940" „Typus" „1943; 3" „19" „coll. A. JACOBI", „Staatl. Museum für Tierkunde, Dresden" *„Selenocephal. nuchalis* JAC." (SMTD) is designated here as lectotype of *Selenocephalus nuchalis*. In outward appearance it fits in our specimens of *Drabescus striatus* described from the Maritime Territory and earlier erroneously determined as *Kutara brunnescens* by J. VILBASTE (1968). Thanks to Dr. W. J. KNIGHT's kind permission I had an opportunity to study type male specimen of *Kutara brunnescens* DISTANT, 1908 described from Ceylon (Peradeniya, DISTANT coll. 1911–383) kept in the British Museum (Natural History); description of its male genitalia absent in literature are given below.

Kutara brunnescens (DIST.) (Figs. 1–6) has pygophore elongated, pygophore lobes widely rounded at apex, without any prolongations, supplied with fine serration in apical part. Genital valve short, nearly three times shorter than its width. Genital plates triangular, with membranously finger-like tapered apical angle. Connective Y-shaped, its branches and base of nearly equal length. Styles with apical part bifurcated, outward angle of it longer than inner one, roundly blunted. Penis with very short and wide base and long shaft somewhat flattened on the sides. There is longitudinal crest on dorsal side of penis turning into bifurcate process near midlength of shaft. There are three thin awl-shaped more or less parallel processes continuing curvature of penis shaft, medial process two times so long as lateral ones. Gonopore ventral, disposed near the midlength of shaft.

22. **Batracomorphus allionii** (TURTON, 1802) (= *Batracomorphus angustior* JACOBI, 1943, **syn. n.**).

JACOBI's materials completely correspond to *B. allionii* in VILBASTE's (1968) and ANUFRIEV's (1971b) interpretation.

Material examined. The male specimen with the labels „Charbin, Manshukuo; leg. W. ALIN, 17 8. 1939" „Typus" „16" „coll. A. JACOBI" „Staatl. Museum für Tierkunde, Dresden" „1942; 3" „*Batracomorph. angustior* JAC." (SMTD) is designated here as lectotype of *B. angustior*; two females (SMTD, GSU) with the same locality label are paralectotypes.

23. **Iassus lateralis** (MATSUMURA, 1905) (= *Batracomorphus laniarius* JACOBI, 1943, **syn. n.**).

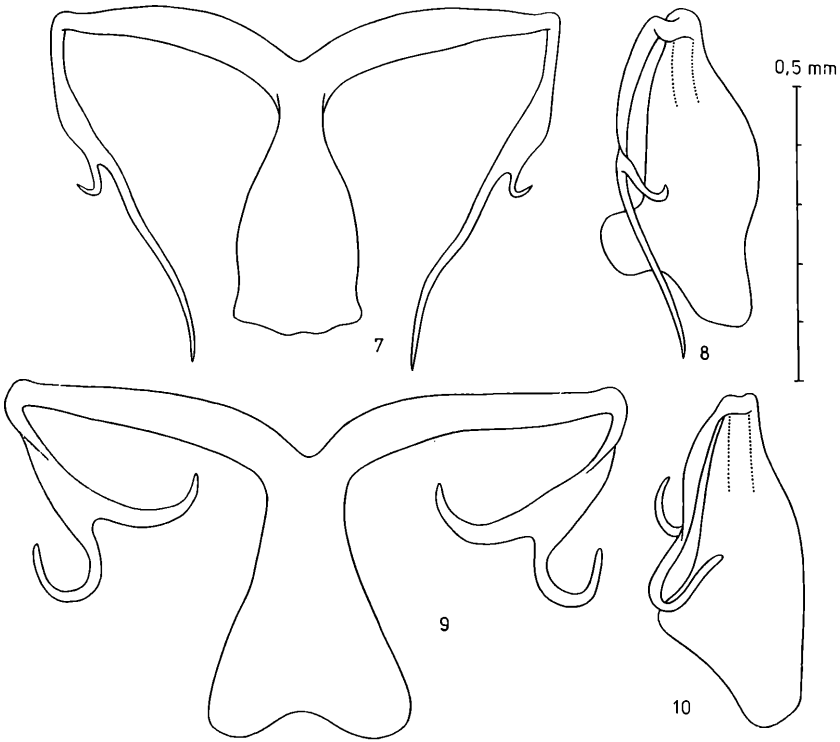
The male specimen with the labels „Tschen, Manshukuo; leg. W ALIN, 28. 7 1940" „Typus" „1942; 3" „17" „coll. A. JACOBI" „Staatl. Museum für Tierkunde, Dresden" „*Batracomorphus laniarius* JAC." which is designated here as lectotype of *Batracomorphus laniarius* completely corresponds to *I. lateralis* in ISHIHARA's (1954) and ANUFRIEV's (1971a, 1978) interpretation.

Handianus (Usuironus) limbicosta (JACOBI, 1944), **comb. n.** (= *Athysanus limbicosta* JACOBI, 1944).

The study of two specimens from the collection of Staatliches Museum für Tierkunde, Dresden designated by B. MANNHEIMS as paratypes allowed to threat this species described from Fukien, China as belonging to subgenus *Usuironus* ISHIHARA, 1953 of the genus *Handianus* RIBAUT, 1942. Subgeneric peculiarities are clear from T. ISHIHARA's description (1953) and its position in the genus – from the materials of EMELJANOV's work (1964). In outward appearance *H. (U.) limbicosta* resembles *H. (U.) limbifer* (MATSUMURA, 1902) but clearly differs from it as well as from other species of the subgenus in some details of penis structure. The key to species of the subgenus is given below.

1 (4) Forewings with bright-yellow stripe along costal margin separated from the rest of brownish-yellow part by bright dark-brown stripe.

2 (3) Anterior processes of penis branches are nearly straight, their apices reach shaft base. **Handianus (Usuironus) limbifer** (MATSUMURA, 1902) (Figs. 7–8) Distribution: Japan (Hokkaido, Honshu), Korean Peninsula, Soviet Maritime Territory (NAST 1972).



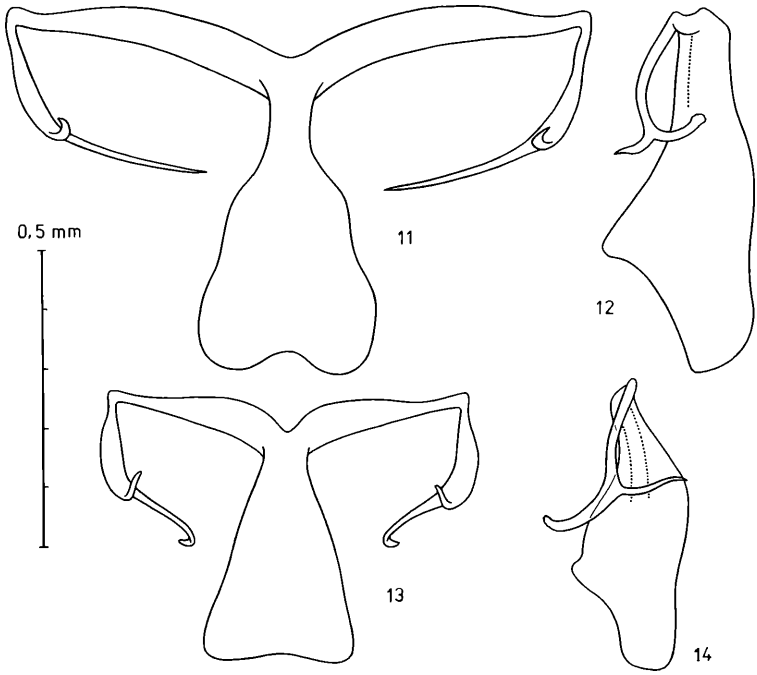
Figs. 7–10.
7–8: *Handianus (Usuironus) limbifer* (MATS.) (from the specimen collected in Frolovka, Soviet Maritime Territory). 7 penis from above – 8: penis from side.
9–10: *H. (U.) limbicosta* (JAC.) (paratype). 9: penis from above – 10: penis from side.

3 (2) Anterior processes of penis branches are semicircularly bent posteriorly.
Handianus (Usuironus) limbicosta (JACOBI, 1944) (Figs. 9–10)
Distribution: China (Fukien) (JACOBI 1944).

4 (1) Forewings without bright-yellow stripe along costal margin separated from the rest of the part by bright dark-brown stripe.

5 (6) Vertex without black patches, only sometimes narrow light-brown band behind ocelli is outlined. Penis shaft abruptly narrowing before branching. Anterior processes of penis nearly straight, directed inside to shaft.
Handianus (Usuironus) ogikubonis (MATSUMURA, 1914) (Figs. 11–12)
Distribution: Japan (Honshu, Kyushu, Shikoku) (NAST 1972), China, new record: (Nankin, 22–24. VI. 1934, JENJOURIST coll., 1 male and 2 females – ZM).

6 (5) Vertex with black patches absent only in very light specimens. Penis shaft gradually narrowing to the branching. Anterior processes of penis branches with apical parts bent outside.



Figs. 11–14.
11–12: *Handianus (Usuironus) ogikubonis* (MATS.) (from the specimen collected Gotenba, Honshu, Japan). 11: penis from above – 12: penis from side.
13–14: *H. (U.) maculaticeps* (RTR.) (from the specimen collected in Murtoy-station, Buryat Autonomous Republic, USSR). 13: penis from above – 14: penis from side.

Handianus (Usuironus) maculaticeps (REUTER, 1885) (Figs. 13–14)
Distribution: Northern and Eastern Kazakhstan, South of the Siberia (from Omsk in west), Mongolia, southern parts of Amur Land, Soviet Maritime Territory (DLABOLA 1965, METCALF 1967, NAST 1972, MITJAEV 1975, ANUFRIEV 1978).

References

(ANUFRIEV, G. A., 1971a). Ануфриев, Г. А. Новые и малоизвестные цикадки (*Homoptera, Auchenorrhyncha*) с Советского Дальнего Востока и из прилегающих стран. – Энтомол. обозрен., **50**, 1: 96–116.
(—, 1971b). —: Новые виды *Cicadellidae (Homoptera)* из Приморского края. – Зоол. журн., **50**, 5: 677–685.
—, 1971c: Study of the genus *Matsumurella* ISHIHARA, 1953 (*Homoptera, Auchenorrhyncha, Cicadellidae*) with description of three new species from China and Japan. – Bull. Acad. Polon. Sci., ser. sci. biol., **19**, 7–8: 511–516.
(—, 1978). —: Цикадки Приморского края (*Homoptera, Auchenorrhyncha, Cicadellidae*). – Труды ВЭО, **60**, Ленинград, „Наука" 1–216.
DLABOLA, J., 1965: Ergebnisse der zoologischen Forschungen von Dr. Z. Kaszab in der Mongolei. 54. *Homoptera – Auchenorrhyncha*. – Acta Faun. Ent. Mus. Nat. Pragae, **11**, 100: 79–136.

(EMELJANOV, A. F., 1962). Емельянов А. Ф.: Материалы по систематике палеарктических цикадок (*Auchenorrhyncha, Euscelinae*). – Труды ЗИН, **30**: 156–184.
(—, 1964). —: Новые цикадовые из Казахстана (*Homoptera, Auchenorrhyncha*). – Труды ЗИН, **34**: 3–51.
(—, 1966). —: Новые палеарктические и некоторые неарктические цикадовые (*Homoptera, Auchenorrhyncha*). – Энтомол. обозрен., **45**, I 95–133.
ISHIHARA, T., 1953: Some new genera including a new species of Japanese *Deltocephalidae, Hemiptera*). – Trans. Shikoku Ent. Soc., **3**, 8: 192–200.
—, 1954: Homopterous notes. – Sci. Rep. Matsuyama Agric. Coll., **14**: 1–28.
—, 1967 Japanese species having been recorded as *Tettigonia albomarginata* (*Hemiptera: Cicadellidae*). – Trans. Shikoku Ent. Soc., **9**, 3: 68.
—, 1971: Several species of the genus *Kolla* Distant (*Hemiptera: Cicadellidae*). – Trans. Shikoku Ent. Soc., **11**, 1 14–20.
JACOBI, A., 1943: Zur Kenntnis der Insekten von Mandschukuo. 12. Beitrag. Eine Homopterenfaunula der Mandschurei. (*Homoptera: Fulgoroidea, Cercopoidea & Jassoidea*). – Arb. morph. taxon. Ent. Berlin-Dahlem, **10**: 21–31.
—, 1944: Die Zikadenfauna der Provinz Fukien in Südchina und ihre tiergeographischen Beziehungen. – München. Ent. Gesell. Mitt., **34**: 5–66.
KUSNEZOV, V., 1931 Eine neue *Petalocephala*-Art. (*Hemipt., Cicad.*). – Wien. Ent. Ztg., **48**: 112–114.
LEQUESNE, W. J., 1965: *Hemiptera Cicadomorpha* (excluding *Deltocephalinae* and *Typhlocybinae*). – Handbooks for the identification of British insects, vol. II, part 2(a), London: 1–64.
METCALF, Z. P., 1967 *Cicadelloidea: Euscelidae*. – General catalogue of the *Homoptera*, Fasc. 6, Part 10 (3 sections), Washington: 1–2695.
(MITJAEV, I. D., 1975). Митяев, И. Д.: Фауна и биология цикадовых Казахстана. Алма-Ата: 1–180 (депонированная рукопись, ВИНИТИ № 1577–75).
NAST, J., 1972: Palaearctic *Auchenorrhyncha (Homoptera)*. An annotated check list. Warszawa: 1–550.
RIBAUT, H., 1952: Homoptères Auchénorhynques. II. (*Jassidae*). – Faune de France, 57 Paris: 1–474.
(VILBASTE, J., 1968). Вильбасте Ю.: К фауна цикадовых Приморского края. Таллин: 1–180.
—, 1971 Die Zikaden Estlands I. Tallinn: 1–284 (in Estonian with German and Russian summaries).
—, 1973: On North-European species of the genus *Limotettix* J. SB., with notes on North-American species (*Homoptera, Cicadellidae*). – Izvestia Acad. Nauk Estonskoi SSR, **22**, 3: 197–209.

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