Revision of the genus *Ryparida* Baly, 1863 (Chrysomelidae: Eunolpinae) from continental Asia

Ревизия рода Ryparida Baly, 1863 (Chrysomelidae: Eunolpinae) из континентальной Азии

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KEY WORDS. Chrysomelidae, Eumolpinae, Rhyparida, new species, new synonym, identification key, continental Asia.

КЛЮЧЕВЫЕ СЛОВА. Chrysomelidae, Eumolpinae, Rhyparida, новые виды, новый синоним, определительный ключ, континентальная Азия.

ABSTRACT. 8 new species are described: Rhyparida lankana (Lanka), Rh. conicicollis, Rh. indica, Rh. wittmeri, Rh. bilineata, Rh. himalayana (India), Rh. condaoensis (Vietnam), Rh. malayana (Malacca) spp.n. A genus Rhyparida is firstly recorded for Laos and Vietnam. Rh. inornata Jacoby, 1908 is transferred from synonymy of Rh. khasiensis Jacoby, 1899 to Rh. bimaculata Jacoby, 1889 as a new synonym. A key to continental species is given.

РЕЗЮМЕ: Описываются 8 новых видов: *Rhyparida lankana* (Шри Ланка), *Rh. conicicollis*, *Rh. indica*, *Rh. wittmeri*, *Rh. bilineata*, *Rh. himalayana* (Индия), *Rh. condaoensis* (Вьетнам), *Rh. malayana* (Малакка) **spp.n**. Род *Rhyparida* впервые указывается для Вьетнама и Лаоса. *Rh. inornata* Jacoby, 1908 перенесён из синонимов *Rh. khasiensis* Jacoby, 1899 к синонимам *Rh. bimaculata* Jacoby, 1889 в качестве нового. Приведён ключ континентальных видов.

Introduction

A large genus *Rhyparida*, including to the moment 330 species (Table), has typical Australian origin: 66% of species are recorded for Australian region (among them 33% from Australia and 29 from New Guinea) is also widely distributed in neighbouring areas, mostly in Oriental region (23%) and in Oceania (6%), but a few species reach African islands and one species recorded for Palearctic (South of Japan). However, only 10 species were recorded till now for continental Asia. This genus is very near to the genus *Basilepta* Motschulsky, 1860, differing only in form of claws, but the latter genus, including also about 330 species is practically Oriental with only 6 species in Australian region (4 species in New Guinea and 2 species in Australia).

The last investigation allows me to find a few new continental species and firstly register this genus for Laos and Vietnam, where they, however, are very rare. During my 15-years working in Vietnam, I can collect more than 10000 specimens of *Basilepta* and only 3 specimens of *Rhyparida*.

Continental *Rhyparida* is represented with two main groups: typical *Rhyparida* with trilobed apex of aedeagus and sulcate elytral rows and other group with triangular apex of aedeagus and not sulcate elytral rows. Early 7 species were indicated for this region [Jacoby, 1908], but one species was synonymised [Medvedev & Sprecher-Uebersax, 1999] and other one (*Rh. aterrima* Jacoby, 1892) removed to the genus *Cleoporus* Lefevre, 1884 as a synonym of *Cleoporus variabilis* [Medvedev, 2002] after investigation a type.

The following abbreviations are used in this paper: NHMB — Naturhistorisches Museum Basel; cLM — collections of L. Medvedev, Moscow

A KEY TO SPECIES

- 1 (4) Species from Sri Lanka. Prothorax with distinctly rounded sides (Fig. 3).

- 4 (1) Continental species.
- 5 (10) Side margins of prothorax straight or very feebly rounded. Body large, 6–7 mm.
- 6 (7) Prothorax trapeziform, widest just at base, with straight side margin (Fig. 1). Body black with feeble metallic luster, legs dark red with more or less piceous femora. Prothorax microsculptured, with dense, not large punctures. Length 6.9–7.1 mm. India (no exact locality)

Printed in 2010. Rh. conicicollis sp.n.

Table. Distribution of *Rhyparida*. Таблица. Распространение рода *Rhyparida*.

	Number		Number		Number
Region	of	Region	of	Region	of
·	species	·	species		species
1. Australian region:	220	2. ORIENTAL REGION:	75	3. PALEARCTIC REGION	1
Australia	110	India	4	Japan: Ryukyu	1
New Guinea	95	Nepal	1	4. OCEANIAN REGION:	21
Ceram Isl.	4	Lanka	1	Fiji	10
Ferguson Isl.	5	Burma	1	Samoa	1
Amboina Isl.	3	Thailand	1	Tonga	1
New Britian Isl.	3	Malacca	1	Christmas Isl.	2
Aru Isl.	2	Adonara	4	Palau	2
Tenimber Isl.	2	Taiwan	3	Caroline Isl.	4
Mysol Isl.	2	Sulawesi	14	New Hebrides	1
Key Isl.	2	Sumatra	5	5. AFRICAN REGION:	4
Waigiu Isl.	2	Java	5	Madagascar	3
Solomon Isl.	2	Borneo	5	Seychelles	1
Ternate Isl.	1	Philippines	27	UNCLEAR LOCALITIES:	9
New Ireland Isl.	1	Sulu Isl.	2	Batchian	5
Roon Isl.	1	Bali Isl.	1	Baia de Rafles	2
Bugenville Isl.	1	Nias Isl.	1	Gilolo	2
Moreton Isl.	1	Flores Isl.	1	TOTAL	330

- 7 (6) Prothorax broadest before base or near middle, with slightly rounded side margins, twice as wide as long. Body fulvous.
- 8 (9) 5–11 antennal segments black, tarsi piceous. Head impunctate. Antennae extending nearly to elytral apices, segment 3 almost 3 times as long as 2. Surface of prothorax very finely and sparingly punctured. Length 6.0 mm. Assam (Khasi Hills)....... *Rh. khasiensis* Jacoby, 1899.
- 9 (8) Antennae and legs entirely fulvous. Head strongly punctate on clypeus and finely on frontovertex. Antennae extending only to middle of elytra, with 3rd segment 1.5 times as long as 2nd. Surface of prothorax with dense and moderately large punctures, densely microsculptured. Length 7.1 mm. East India (no exact locality)......
- Rh. indica sp.n. 10 (5) Prothorax distinctly rounded on sides, usually broadest at or just behind middle. Body smaller than 6 mm.
- 12 (11) Upperside without metallic colour.
- 14 (13) Prothorax impunctate or very finely and sparsely punctuate.
- 15 (16) Aedeagus with triangular acute apex (Fig. 5). Antennal segments 2 and 3 subeqal. Elytra parallel-sided, 1.45–1.5 times as long as wide. Fulvous, prothorax with 4 black spots in transverse row, elytra with a few elongate black spots, black colour variable and often partly or entirely

- 16 (15) Aedeagus (if known) with tridentate apex. Elytra usually more or less rounded on sides. Upperside without small black spots.
- 17 (20) Elytra black with fibrous stripe in middle (Fig. 13).
- 18 (19) Prothorax black, impunctate, with small groove on sides. Anterior margin of clypeus tri-emarginate. Beneath piceous. Fulvous elytral stripe widened near apex. Length 5 mm. Assam (Patkai Mts) Rh. assamensis Jacoby, 1908.
- 19 (18) Prothorax fulvous, very finely and sparsely punctuate, not grooved on sides. Beneath fulvous with darkened tarsi. Fulvous elytral stripe not widened apically. Length 4.4–4.7 mm. West Bengalia (Darjeeling)
- 20 (17) Elytra fulvous (sometimes with longitudinal black stripe) or black.
- 21 (30) Elytra fulvous.
- 22 (23) Antennal segments 2 and 3 equal. Body fulvous, antennal segments 6–11 black or piceous, apices of elytra mostly pale flavous. Clypeus poorly divided from frons. Elytra with postbasal impression. Interspaces of elytral rows flat. Aedeagus unknown. Length 2.5–3.5 mm. India: Bengal (Mandar, Darjeeling)......

- 25 (24) Antennal segment 3 at least twice as long as 2.
- 26 (27) Aedeagus broad, its apical half 1.25 times as long as wide (Fig.6). Antennal segment 3 twice as long as 2. Body

entirely fulvous. Interspaces of elytral rows more or less convex. Length 5.1–5.3 mm. Malacca (Perak)

...... Rh. malayana sp.n.

- 27 (26) Aedeagus narrow, its apical half almost twice as long as wide. Antennal segment 3 not less than 2.5 times as long as 2.

- 30 (21) Elytra entirely black or dark piceous.
- 31 (34) Head and prothorax red.

- 34 (31) Prothorax black.
- 36 (35) Antennal segment 3 about twice as long as 2. Black, head and narrow anterior margin of prothorax red, 4 basal antennal segments fulvous. Prothorax with rounded side margins, prothorax practically impunctate. Elytral rows not sulcate, interspaces flat. Femora without distinct tooth. Length 4.7 mm. North India (Megalaya), 1 female ... *Rh.* sp. D.

Rhyparida lankana L.Medvedev, **sp.n.** Figs 3–4

MATERIAL. Holotype, 103, Sri Lanka, Dambulla env., 19.IV-9.V.1991, 300m, leg. Jiri Kolibac (cLM)

DESCRIPTION. Body black with metallic blue luster, labrum, antennae, scutellum and legs fulvous.

Body elongate ovate. Head microsculptured, clypeus strongly punctuate, with deeply arcuate anterior margin, divided from frontovertex with impressed line, the latter with very fine and sparse punctures. Antennae thin, proportions of segments are as 9–6–8–12–12–12–12–10 (next segments absent). Prothorax 1.6 times as wide as long, side margins rounded, broadest just behind middle, more narrowed anteriorly than posteriorly, fore and hind angles not produced, surface microsculptured, with rather dense and moderately strong punctures. Scutellum slightly transverse, rounded on apex, with microsculpture and sparse punctures. Elytra 1.3 times as long as wide, broadest in shoulders, with rounded side margins (Fig. 3) and broadly rounded apices, scutellar row short, rows 1–5 reach a base, 6,7 and 10 start from humerus, 8 and 9 shortened

on both ends and partly confused, 11 represent — with a few punctures basally, interspaces narrow, practically flat, microsculptured; basal convexity very feeble. All femora not toothed. Propleurae microsculptured. Aedeagus (Fig. 4) with tridentate apex and concave underside, its apical half 1.8 times as long as wide. Length of body 7.0mm.

DIAGNOSIS. Differs from all continental species by combination of metallic upperside and large body.

Rhyparida conicicollis **sp.n.** Fig. 1

MATERIAL. Holotype, 1°_{γ} , India (no exact locality) (cLM) Paratype: some locality, 1°_{γ} , (LM).

DESCRIPTION. Body ovate. Head microsculptured, clypeus indistinctly divided from frontovertex, strongly punctuate, with feebly arcuate anterior margin. Antennae reach anterior third of elytra, proportions of srgments are as 7-6-6-7-9-6-6-6-7-6-8, preapical segments about 2.5 times as long as wide. Prothorax 1.7-1.8 times as wide as long, broadest at base, strongly narrowed anteriorly, side margins straight (Fig. 1), fore and hind angles not produced, surface microsculptured, with moderately dense punctures. Scutellum slightly transverse, rounded on apex, microsculptured and very finely punctuate. Elytra 1.2 times as long as wide, broadest near middle, with slightly arcuate side margins and broadly rounded apices, elytral rows not sulcate, arranged as in preceding species, interspaces flat, microsculptured, with very fine punctures, basal convexity very feeble. Femora not toothed. Claws of hind tarsi not splitted. Length of body 6.9– 7.1mm.

Black with feeble metallic luster, legs dark red with more or less piceous femora, antennae black with fulvous basal segments.

DIAGNOSIS. Differs from all known species of this genus by unsplitted claws on hind tarsi and from continental species by quite straight lateral margins of prothorax.

Rhyparida indica L.Medvedev, **sp.n.** Fig. 2

MATERIAL. Holotype, 1 , East India (no exact locality) (cLM) DESCRIPTION. Entirely fulvous.

Body elongate ovate. Head microsculptured, clypeus delimited from frontovertex with impressed line, strongly punctuate, with rather deeply arcuate anterior margin; frontovertex finely punctuate with longitudinal groove anteriorly. Antennae thin reach middle of elytra, proportions of segments are as 10-6-10-11-11-11 (next segments absent.

Prothorax 1.75 times as wide as long, broadest in basal third, side margins feebly rounded (Fig. 2), fore and especially hind angles produced, surface microsculptured, with dense and moderately large punctures. Scutellum slightly transverse, microsculptured, with subtriangular apex. Elytra 1.5 times as long as wide, with almost straight and parallel side margins and broadly rounded apices, elytral rows not sulcate, rows 8 and 9 shortened and confused, basal convexity not distinct. Femora not toothed. Length of body 7.1mm.

DIAGNOSIS. Near *Rh. khasiensis* Jacoby, 1899, differs by a group of characters (see a key).

Rhyparida condaoensis L.Medvedev, sp.n.

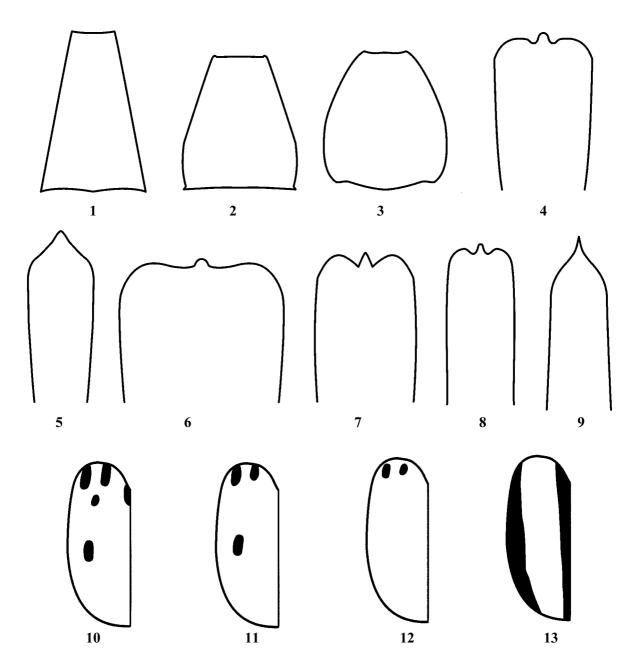
MATERIAL. Holotype, 1, Vietnam, island Con-Dao, 6.IV.1987, leg. L.Medvedev (cLM).

DESCRIPTION. Entirely fulvous.

Body elongate ovate, flattened above. Head strongly punctuate, without microsculpture, clypeus not divided posteriorly, with practically straight anterior margin, vertex with short longitudinal impression. Antennae reach anterior third of elytra, proportions of segments are as 5–6–7–10–9–9–9–9–9–11, preapical segments about twice as long as wide. Prothorax 1.4 times as wide as long, broadest in middle, with rounded side margins and produced fore and hind angles, surface shining, densely punctuate, with interspaces comparable in size with diameter of punctures. Scutellum as long as wide, triangular with rounded apex, with a few very fine

punctures. Elytra 1.4 times as long as wide, parallel-sided with rounded apex, rows with strong punctures, but practically not sulcate, 9th cow shortened posteriorly, not quite regular, interspaces flat, shining and impunctate. Fore and hind femora with small acute tooth. Propleurae not microsculptured, distinctly punctuate. Length 4.3mm.

DIAGNOSIS. Differs well from all continental species by propleurae punctuate and not microsculptured, flattened upperside and densely punctuate prothorax.



Figs 1–13. Detail of *Rhyparidae* spp.: 1–3 — lateral margin of prothorax; 4–9 — aedeagus, apical half (after median curving), ventral view; 10–13 — elytral pattern; 1 — *Rh. conicicollis* **sp.n.**; 2 — *Rh. indica* **sp.n.**; 3–4 — *Rh. lankana* **sp.n.**; 5, 10–12 — *Rh. wittmeri* **sp.n.**; 6 — *Rh. malayana* **sp.n.**; 7 — *Rh. bimaculata*; 8 — *Rh. thailandica*; 9 — *Rh. himalayana* **sp.n.**; 13 — *Rh. bilineata* **sp.n.**

Рис. 1–13. Детали строения *Rhyparidae* spp.: 1–3 — боковой край переднеспинки; 4–9 — эдеагус, вершинная часть (после срединной изогнутости) снизу; 10–13 — рисунок надкрылий; 1 — *Rh. conicicollis* sp.n.; 2 — *Rh. indica* sp.n.; 3–4 — *Rh. lankana* sp.n.; 5, 10–12 — *Rh. wittmeri* sp.n.; 6 — *Rh. malayana* sp.n.; 7 — *Rh. bimaculata*; 8 — *Rh. thailandica*; 9 — *Rh. himalayana* sp.n.; 13 — *Rh. bilineata* sp.n.

Rhyparida wittmeri L.Medvedev, **sp.n.** Figs 5, 10–12

MATERIAL. Holotype, 1° , India, Goa, Molem, 120–240m, 3–4.III.1984, leg. W.Wittmer (NHMB).

Paratypes: same locality, 6 ex. (4 — NHMB, 2 ex. — cLM).

DESCRIPTION. Fulvous, antennae black with fulvous basal segment, prothorax with all margins narrowly and transverse row of 4 spots in middle black, but spots might be partly reduced or prothorax entirely fulvous. Elytra also might have a few black spots (Figs 10–12) or they are unspotted. Epippleurae sometimes darkened behind middle.

Body elongate. Head impunctate, without microsculpture, clypeus poorly divided from frontovertex, slightly emarginated on anterior margin. Antennae reach middle of elytra, proportions of segments are as 6–5–6–8–7–7–8–8–8–8–10, preapical segments about 3 times as long as wide. Prothorax 1.7 times as wide as long, broadest in middle, with sides distinctly rounded, fore and hind angles produced, surface shining and practically impunctate. Scutellum slightly transverse, triangular, shining and impunctate. Elytra 1.4 times as long as wide, almost parallel-sided with broadly rounded apex, elytral rows subcate, all rows reach basal margin or hind margin of humeral tubercle, interspaces convex, shining and impunctate. All femora with very small tooth. Propleurae shining, impunctate. Aedeagus (Fig. 5) with triangular acute apex. Length of body 3.2–3.8mm.

DIAGNOSIS. Differs from other continental species by combination of group of features — see a key.

Rhyparida bilineata L.Medvedev, **sp.n.** Fig. 13

MATERIAL. Holotype, 1, India, Distr. Darjeeling, Jhepi, 22.V.1975, leg. W.Wittmer (NHMB).

Paratype, 1♀, India, Distr. Darjeeling, Khoprey Busti (KPG), 1300m, 7.V.1986, leg. Ch.J.Rey (cLM).

DESCRIPTION. Fulvous, antennae piceous with fulvous basal segments, elytra with black lateral and sutural stripes connected on apex (Fig. 13), apices of tibiae and tarsi darkened.

Body ovate. Head microsculptured, clypeus poorly delimited posteriorly, with a few very fine punctures and feebly arcuate anterior margin; frontovertex impunctate, with longitudinal short impression. Antennae reach apical slope of elytra, proportions of segments are as 6–3–7–8–8–8–8–7–7–7, preapical segments about 3 times as long as wide. Prothorax twice as wide as long, broadest near middle, with distinctly rounded side margins and produced fore and hind angles, surface with fine and sparse punctures and traces of microsculpture. Scutellum as long as wide, microsculptured. Elytra 1.3 times as long as wide, broadest near middle, with sides slightly arcuate and apices broadly rounded, with rows feebly sulcate, rows 8 and 9 shortened on both ends, interspaces shining, impunctate, flat or slightly convex. All femora with small tooth beneath. Propleurae microsculptured. Length of body 4.4-4.7mm.

DIAGNOSIS. Near *Rh. assamensis* Jacoby, 1908, differs by fulvous and punctuate prothorax without impression on sides, other form of anterior margin of clypeus and other colour of underside.

Rhyparida malayana L.Medvedev, **sp.n.** Fig. 6

MATERIAL. Holotype, 1♂, West Malaysia, Perak, Maxwell Hill, 900–1000m, above Taiping city, 12–16.I.1995, leg. S.Becvar (cLM). Paratype: 1♀, Malaysia [Malacca Peninsula], Talping (=Taiping), VI.1977, leg. Wong (cLM).

DESCRIPTION. Fulvous to reddish fulvous.

Body broadly ovate. Head practically impunctate, clypeus subquadrate, slightly narrowed to behind, divided from frons with impression, its anterior margin slightly arcuate. Antennae reach middle of elytra, proportions of segments are as 7-4-8-9-9-9-10-10-10-9-8, preapical segments about 5 times as long as wide. Prothorax twice as wide as long, side margins rounded, broadest behind middle, more narrowed anteriorly than posteriorly, surface shining, extremely finely and sparsely punctuate. Scutellum as long as wide, finely microsculptured. Elytra 1.2 times as long as wide, sides distinctly rounded, especially in female, scutella row about a quarter of elytral length, rows 1–5 reach a base, 6,7 and 10 start from humerus, 8 and 9 shortened on both ends, 11 very short, just behind humerus; interspaces broad, impunctate, feebly convex in male, distinctly convex in female. Femora of male not toothed, fore and hind femora of female with microscopical tooth. Propleurae densely microsculptured. Aedeagus (Fig. 6) broad, its apical half 1.25 times as long as wide, with tridentate apex. Length of male 5.1mm, of female 5.3mm.

DIAGNOSIS. From similarly coloured continental species differs very broad aedeagus (see a key); resembles also *Rh. armata* Jacoby, 1889 from Sumatra, but this species has very large tooth on fore femora.

Rhyparida bimaculata Jacoby, 1889 Fig. 7

Rhyparida immaculata Jacoby 1908, syn. n.

Rhyparida bimaculata Jacoby was described from Burma and usually has entirely fulvous upperside, but very rarely represented with variation, having black stripe on elytra (and this character explains a name of species). Rh. immacula Jacoby, 1908 was described from East India and quite identical with fulvous form of Rh. bimaculata, both species were compared with unspotted Jacoby's type. Earlier Rh. immaculata was erroneously united with Rh. khasiensis Jacoby, 1899 [Medvedev & Sprecher-Uebersax, 1999].

Rhyparida himalayana L.Medvedev, **sp.n.** Fig. 9

MATERIAL. Holotype, 1♂, India, West Bengalen, distr. Darjeeling, Kalimpong, Khani-Busty, 900m, 23.IV.1991, leg. M.Dangal (cLM).

DESCRIPTION. Black to piceous, head and 4 basal antennal segments fulvous.

Body elongate. Head very finely punctuate, mostly on clypeus, which is undivided from frontovertex, with slightly arcuate anterior margin; vertex without longitudinal impression. Antennae reach behind middle of elytra, proportions of segments are as 8-6-7-7-7-9-9-9-10-11, preapical segments about 3 times as long as wide. Prothorax 1.6 times as wide as long, broadest near middle, with sides feebly rounded, anterior and posterior angles produced, surface shining, not heavily and sparsely punctuate. Scutellum slightly elongate, triangular with rounded apex, shining, practically impunctate. Elytra 1.3 times as long as wide, almost parallel-sided with broadly rounded apices, elytral rows not sulcate, rows 8 and 9 strongly reduced and confused, all rows very feeble on apical slope, interspaces flat, broad and shining. All femora with small tooth. Length of body 3.2mm. Aedeagus with acute triangular apex (Fig.9).

DIAGNOSIS. Near *Rh. aterrima* Jacoby, 1892, but larger, with subeqal antennal segments 2 and 3 and not sulcate elytral rows.

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