

## Two New Species of the Genus *Plateros* (Coleoptera, Lycidae, Platerodinae) from the Ryukyu Islands, Southwest Japan

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**Abstract** Two new lycid beetles, *Plateros satoi* sp. nov. and *P. teruhisai* sp. nov. are described from Amami-Ōshima and Kume-jima Islands, Kagoshima and Okinawa Prefectures, the Ryukyu Islands, Southwest Japan. A key to the known species of the genus *Plateros* occurring in the Ryukyu Islands is given.

The Ryukyu fauna of the Lycidae has been studied by NAKANE (1961, 1969, 1985), SATŌ & OHBAYASHI (1968), CHŪJŌ & SATŌ (1970), MATSUDA (1985, 1992) and SATŌ & MATSUDA (1985). Eleven species of the genus *Plateros* BOURGEOIS, 1879 have hitherto been recorded from the archipelago.

Recently, the author had an opportunity to examine a total of 58 specimens of *Plateros* collected on Amami-Ōshima and Kume-jima Islands. As the result of careful taxonomic examination, he found two new *Plateros* species among them.

In the present paper, these two new species, *Plateros satoi* and *P. teruhisai*, will be described with short taxonomic notes and etymology. This paper is dedicated to the memory of the late Dr. Masataka SATŌ, who contributed to the clarification of the lycid fauna of the Ryukyu Islands.

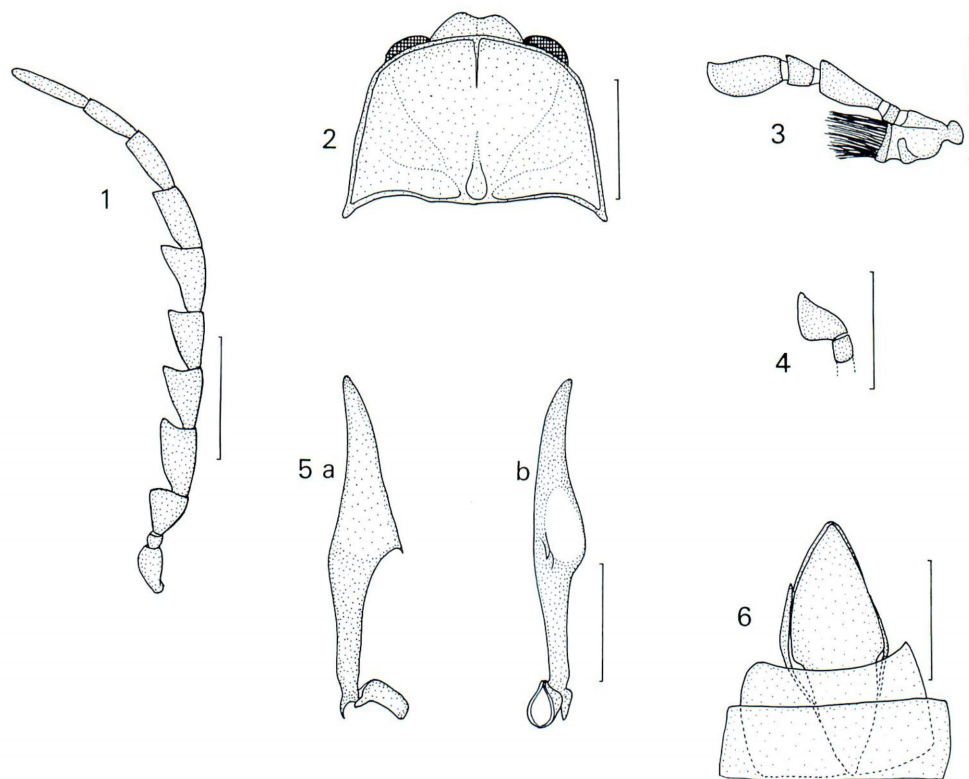
### *Plateros satoi* sp. nov.

(Figs. 1–6)

**Male.** Body blackish brown, shining, with mandibles and claws yellowish brown; head, pronotum, scutellum and legs black to dark reddish brown, shining; antennae black to blackish brown except for segment 2 somewhat reddish; elytra uniformly red.

Body surface closely clothed with short, recumbent, yellowish brown pubescence; head, pronotum and scutellum closely clothed with short, recumbent, blackish to reddish brown pubescence; antennae closely clothed with short, suberect, blackish to dark reddish brown hairs; elytra rather densely clothed with short, recumbent, carmine red pubescence.

Head mostly concealed under pronotum, finely and moderately punctured; frons short, strongly deflexed, slightly rounded in front, with a short narrow longitudinal



Figs. 1-6. *Plateros satoi* sp. nov., ♂, from Mt. Yuwan-dake, Amami-Ōshima Is., Kagoshima Pref., Ryukyu Islands, Southwest Japan. — 1, Antenna; 2, head and pronotum; 3, maxilla; 4, labial palpus; 5, male genitalia, a, lateral view; b, ventral view; 6, terminal abdominal segments. Scale for 1, 2, 5, 6 : 0.5 mm; Scale for 3, 4 : 0.25 mm.

groove between frontal tubercles, which are not strongly swollen just behind antennal insertions; vertex with a distinct impression in central portion, which bears several small pores.

Eyes relatively small, lateral, hemispherically prominent; distance between eyes about 1.3 times as wide as the diameter of an eye.

Antennae rather short, barely reaching basal third of elytra; segment 1 stout, strongly swollen at apex; segment 2 cylindrical, about two-thirds as long as wide; segment 3 triangular, about as long as the apical width; segments 4 to 10 strongly serrate and gradually decreasing in width; segment 11 fusiform; relative lengths from segments 1 to 11:— 0.8 : 0.4 : 1.0 : 1.4 : 1.4 : 1.5 : 1.4 : 1.4 : 1.5 : 1.4 : 2.0.

Maxillary palpi with terminal segment elongate, securiform, about 1.9 times as long as wide, about 2.7 times as long as 3. Labial palpi with terminal segment subtriangular, about 1.2 times as long as wide.

Prothorax transverse, semicircular, about 0.7 times as long as the basal width; anterior margin widely arched; anterior angles widely rounded; lateral margins slightly diverging posteriorly; posterior angles sharply projecting latero-obliquely; basal margin bisinuate; sides widely reflexed; disc smooth, convex, obliquely grooved from each anterior corner to the middle of basal fourth, deeply and triangularly impressed at each inside of anterior and posterior corners, finely and moderately punctured on central portion, coarsely punctured along ante-lateral margins, provided with a short narrow longitudinal carina in front and a lanceolate longitudinal fovea before the middle of basal margin.

Scutellum subquadrate with apex transversely truncated; surface minutely and rather closely punctured.

Elytra subparallel-sided, slightly diverging posteriorly, dehiscent behind basal two-fifths and separately rounded at apices, about 3.1 times as long as wide, about 5.1 times as long as prothorax, each having four distinct primary costae, the intervals each with double rows of large round and irregular cells.

Ventral surface rugose, finely and closely punctured; abdominal sternite 7 roundly emarginate at apex; anal sternite subtriangular, gradually narrowed to apex.

Posterior tibiae slender, slightly dilated towards apices, slightly shorter than posterior femora; posterior tarsi with segments 1 to 4 subequal in length; segment 5 distinctly longer than 4; claws simple, somewhat angulate at base.

Male genitalia rather short; median lobe lanceolate, with a distinct spine before the middle; basal piece small.

*Female.* Eyes relatively small, weakly prominent; distance between eyes 1.5–1.6 times as long as the diameter of an eye.

Antennae weakly serrate, rather robust, not reaching the middle of elytra; segment 3 about 0.9 times as long as wide; relative lengths from segments 1 to 11:— 1.1 : 0.5 : 1.0 : 1.3 : 1.2 : 1.5 : 1.5 : 1.5 : 1.5 : 1.2 : 1.5.

Length: 5.2–6.7 mm; width: 1.4–1.8 mm.

*Type series.* Holotype: ♂, Mt. Yuwan-dake, Amami-Ōshima Is., Kagoshima Pref., Ryukyu Islands, Southwest Japan, 28~30-VI-1992, K. KINUGUSA lgt.

Paratypes: 2♀, Hatsuno, Amami-Ōshima Is., 6-VI-1973, T. HATAYAMA lgt.; 1♀, Yamato-son, Amami-Ōshima Is., 3-V-1976, T. NIISATO lgt.; 1♀, Mt. Yuwan-dake, Amami-Ōshima Is., 19-VI-1980, S. IMASAKA lgt.; 1♀, Chûô-rindô, Amami-Ōshima Is., 18-VI-1980, S. IMASAKA lgt. The holotype is deposited in the collection of the National Science Museum (Nat. Hist.), Tokyo.

*Etymology.* Named in honor of the late Dr. Masataka SATÔ, Nagoya City, Japan, who was a prominent specialist of Japanese and Southeast Asian Cantharoidea.

*Notes.* This new species resembles *P. nakachii* NAKANE from Okinawa Is., Japan, in coloration, but differs in having weakly serrate antenna and in the shape of aedeagus.



*Plateros teruhisai* sp. nov.

(Figs. 7-12)

**M a l e.** Body dark reddish brown, shining, with mandibles and femora somewhat lighter; head black, shining; pronotum and scutellum orange red, shining; antennae blackish brown except for segment 2 dark reddish brown; claws yellowish brown; elytra uniformly red.

Body surface, head and legs closely clothed with short, recumbent, reddish to yellowish brown pubescence; antennae closely clothed with long, suberect, reddish brown hairs; pronotum, scutellum and elytra densely clothed with short, recumbent, carmine red pubescence.

Head mostly concealed under pronotum, finely and closely punctured; frons short, strongly deflexed, rather slightly rounded in front, with a short distinct longitudinal groove between frontal tubercles, which are not strongly swollen, just behind antennal insertions; vertex with a distinct V-shaped impression in central portion.

Eyes very large, lateral, hemispherically prominent; distance between eyes about 0.7 times as wide as the diameter of an eye.

Antennae long, fully reaching the middle of elytra; segment 1 stout, strongly swollen at apex; segment 2 short, cylindrical, about one-third as long as wide; segment 3 triangular, slightly shorter than the apical width; segments 4 to 10 strongly serrate; the fifth antennal branch the longest, the fifth to the eighth about as long as or a little shorter than each segment; segment 11 fusiform; relative lengths of segments 1 to 11:— 1.1 : 0.2 : 1.0 : 1.4 : 1.4 : 1.5 : 1.5 : 1.5 : 1.4 : 1.4 : 2.2.

Maxillary palpi with terminal segment securiform, about 1.4 times as long as wide, about 2.0 times as long as 3. Labial palpi with terminal segment triangular, about 1.7 times as long as wide.

Prothorax transverse, subpentagonal, about 0.8 times as long as the basal width; anterior angles obtusely rounded; lateral margins slightly sinuate at middle and weakly diverging posteriorly; posterior angles strongly and triangularly projecting latero-posteriorly; basal margin bisinuate; sides widely reflexed; disc smooth, convex, obliquely grooved from each anterior corner to the middle of basal third, provided with a short narrow longitudinal carina in front and an oval longitudinal fovea before the middle of basal margin.

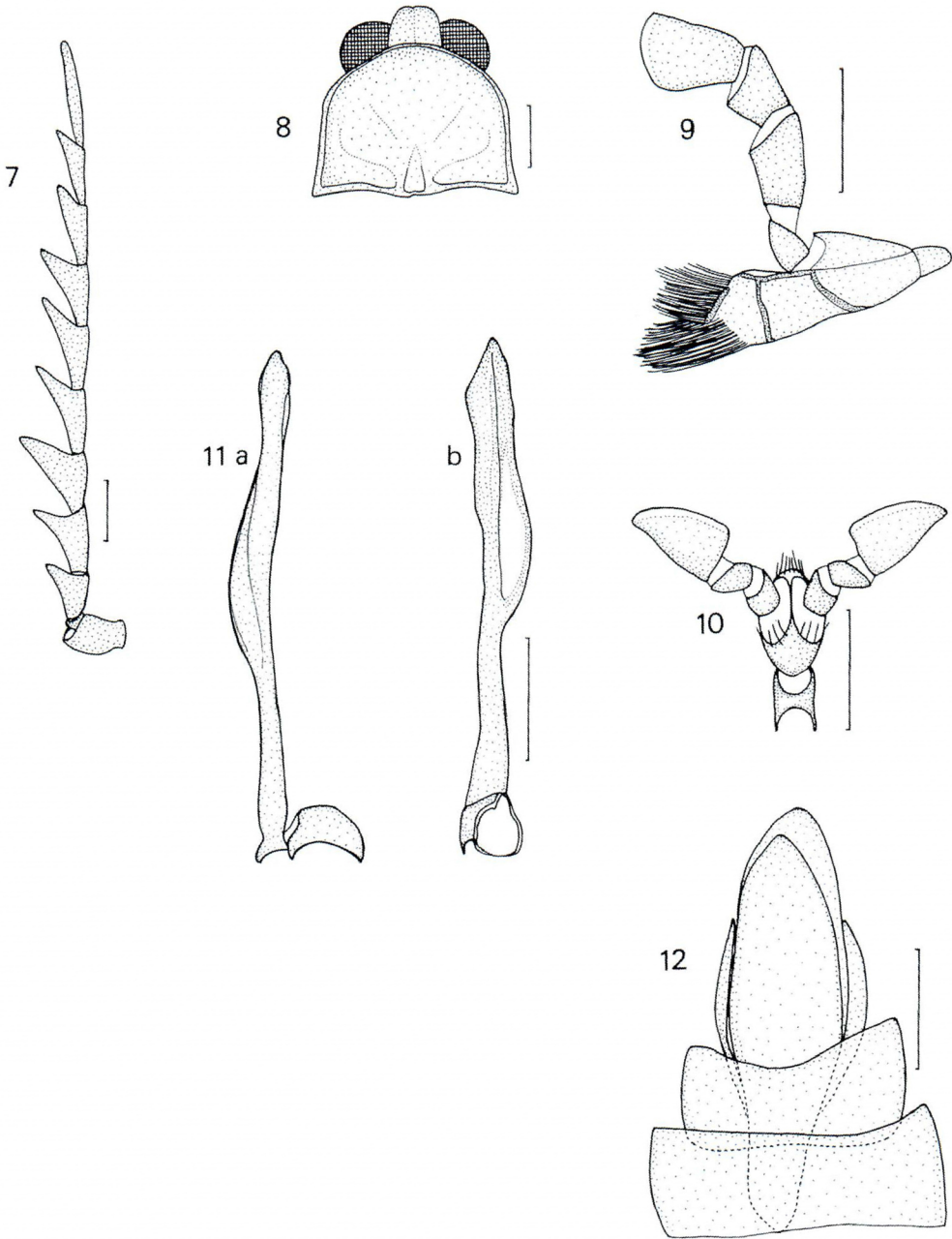
Scutellum subquadrate with apex transversely truncated; surface minutely and moderately punctured.

Elytra subparallel-sided, slightly diverging posteriorly, dehiscent behind the basal fifth and separately rounded at apices, about 3.1 times as long as wide, about 4.6 times as long as prothorax, each having four distinct primary costae and five weak secondary costae, the intervals each with a row of round or subquadrate cells.

Ventral surface rugose, finely and closely punctured; abdominal sternite 7 roundly emarginate at apex; anal sternite subtriangular, long, gradually narrowed to apex.

Posterior tibiae slender, slightly dilated towards apices, a half length longer than





Figs. 7-12. *Plateros teruhisai* sp. nov., ♂, from Mt. Darumayama, Kume-jima Is., Okinawa Pref., Ryukyu Islands, Southwest Japan. — 7, Antenna; 8, head and pronotum; 9, maxilla; 10, labium; 11, male genitalia, a, lateral view; b, ventral view; 12, terminal abdominal segments. Scale for 7, 8, 11, 12 : 0.5 mm; Scale for 9, 10 : 0.25 mm.

posterior femora; posterior tarsi with segments 1 to 4 subequal in length; segment 5 distinctly longer than 4; claws simple, clearly angulate at base.

Male genitalia long; median lobe flattened and twisted in apical half, with the distal portion suddenly narrowed to apex; basal piece small.

Female unknown.

Length: 7.2 mm; width: 1.8 mm.

*Type series.* Holotype: ♂, Mt. Darumayama, Kume-jima Is., Okinawa Pref., Ryukyu Islands, Southwest Japan, 9-VI-1994, T. UENO lgt. The holotype is deposited in the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo.

*Etymology.* Named in honor of Mr. Teruhisa UENO, Fukuoka City, Japan, who is an excellent specialist on the Cucujoidea.

*Notes.* This new species resembles *Plateros igneus* CHÛJÔ et SATÔ in coloration, but differs in the shape of aedeagus.

#### Key to the Species of the Genus *Plateros* Occurring in the Ryukyu Islands — males

- 1(14) Elytra red or yellow.
- 2( 7 ) Prothorax entirely black to blackish brown.
- 3( 4 ) Aedeagus long, median lobe strongly coiled in apical half. Okinawa Is. ....  
.....*P. nakachii* NAKANE
- 4( 5 ) Aedeagus short, median lobe not coiled in apical half.
- 5( 6 ) Eyes large, distance between eyes about 0.7 times as wide as the diameter of an eye. Ishigaki Is., Taketomi Is. and Iriomote Is. ....  
.....*P. yaeyamanus* CHÛJÔ et SATÔ
- 6( 5 ) Eyes small, distance between eyes about 1.3 times as wide as the diameter of an eye. Amami-Ôshima Is. ....*P. satoi* sp. nov.
- 7( 2 ) Prothorax neither black nor blackish brown.
- 8(11) Pronotum uniformly red.
- 9(10) Median lobe strongly coiled in apical half. Ishigaki Is., Taketomi Is. and Iriomote Is. ....*P. igunius* CHÛJÔ et SATÔ
- 10( 9 ) Median lobe nearly straight, flattened and twisted in apical half. Kume-jima Is. ....  
.....*P. teruhisai* sp. nov.
- 11( 8 ) Pronotum red or yellow, usually bearing a basal black spot or two lateral black stripes.
- 12(13) Pronotum red, with a discal large spot in median portion. Amami-Ôshima Is. ....  
.....*P. miwai* SATÔ et OHBAYASHI
- 13(12) Pronotum yellow, with two longitudinal black stripes in median portion. Honshu, Kyushu, Tsushima Is., Ryukyu Islands; China, Korea, Taiwan, India and Indochina. ....*P. planatus* WATERHOUSE
- 14( 1 ) Elytra uniformly black.

- 15(18) Margins of pronotum reddish to yellowish brown.  
 16(17) Antennal segment 4 about 2.1 times as long as 3. Ishigaki Is. and Iriomote Is.  
 .....*P. rufomarginatus* CHÛJÔ et SATÔ  
 17(16) Antennal segment 4 about 1.3 times as long as 3. Amami-Oshima Is. ....  
 .....*P. ikarianus* NAKANE  
 18(15) Pronotum entirely black to blackish brown.  
 19(22) Lateral margins of pronotum gradually divergent backwards.  
 20(21) Eyes large, distance between eyes about 0.5 times as wide as the diameter of an  
 eye; median lobe twisted at apex. Amami-Ôshima Is. and Okinawa Is. ....  
 .....*P. shirakii* NAKANE  
 21(20) Eye relatively small, distance between eyes about 1.4 times as wide as the  
 diameter of an eye; median lobe straight, gradually narrowed to apex.  
 Ishigaki Is. and Iriomote Is. ....*P. imasakai* MATSUDA  
 22(19) Lateral margins of pronotum subparallel or slightly constricted at the middle;  
 aedeagus long, median lobe slender, elliptically widened in apical third, with  
 a pair of short spine just at the base of the dilation.  
 23(24) Antennal segment 3 about as long as wide; distance between eyes about 0.8  
 times as wide as the diameter of an eye. Amami-Ôshima Is. ....  
 .....*P. shibatai* NAKANE  
 24(23) Antennal segment 3 distinctly longer than wide; distance between eyes about 0.6  
 times as wide as the diameter of an eye. Iriomote Is. ....  
 .....*P. sakishimana* NAKANE

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### 要 約

松田 潔: 南西諸島産ハナボタル属の2新種. — 奄美大島と久米島産の標本に基づき、ベニボタル科ハナボタル属 *Plateros* の2新種、サトウハナボタル *Plateros satoui* sp. nov. とクメジマハナボタル *P. teruhisai* sp. nov. を記載した。これまで南西諸島からは、既知種のアナボタルが11種知られてきたが、上記2新種は、これらのいずれの種とも雄交尾器の形態で明瞭に区別できる。

なお、奄美大島産の新種のアナボタルの種名は、南西諸島のベニボタル相の解明に大きい貢献



をされ、昨年逝去された故佐藤正孝博士に哀悼の意を表して献名した。

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