Elytra, *Tokyo*, **27** (1): 167–175, May 15, 1999

Three New Species of the Genus *Parastasia* (Coleoptera, Scarabaeidae, Rutelinae) from Southeast Asia

Kaoru WADA

3–13–19, Kokubunjidai, Ebina-shi, Kanagawa, 243–0413 Japan

and

Rieko MURAMOTO

1–14–7–303, Kamitakaido, Suginami-ku, Tokyo, 168–0074 Japan

Abstract Three new species of the genus *Parastasia* are described from Sulawesi, Thailand and Sumbawa Island: *Parastasia pulupuluensis*, *P. masumotoi* and *P. fujiokai*, respectively.

Through the courtesy of Mr. Masayuki FUJIOKA, we had an opportunity to examine specimens of the genus *Parastasia* preserved in his private collection. After detailed study, we have concluded that three new species are contained in it. In this article, we are going to describe them under the names *Parastasia pulupuluensis*, *P. masumotoi* and *P. fujiokai*.

Before going further, we wish to express our cordial thanks to Dr. Kimio MASUMOTO of Otsuma Women's University, Tokyo, for his constant guidance of our entomological study. Deep appreciation is also due to Dr. Manfred UHLIG and Mr. Joachim SCHULZE of the Museum für Naturkunde der Humboldt Universität zu Berlin, for the loan of materials under their care. Deep indebtedness should be expressed to Dr. Roger-Paul DECHAMBRE of the Muséum National d'Histoire Naturelle, Paris, Dr. Martin BAEHR of the Zoologische Staatssammlung, München, Dr. C. O'TOOL of the Hope Entomological Collection of the University Museum, Oxford, and Mr. Malcolm D. KERLEY of the Natural History Museum, London, for giving us the opportunity to examine their collections of the genus *Parastasia*. We thank Mr. Yasushi TOKITA of Tama City Cultural Foundation for help in taking the SEM photographs. Finally, thanks are also due to Mr. Masayuki FUJIOKA, Tokyo, for providing us with the invaluable materials. The holotypes of the new species will be preserved in the collection of the Kanagawa Prefectural Museum of Natural History, Odawara, Japan.

Parastasia pulupuluensis sp. nov.

(Figs. 1, 6, 10, 11)

Body length: 19.5–20.7 mm, width: 11.0–11.4 mm.

Antennae and margins of pronotum light reddish brown, head, anterior margins and humeral swellings of elytra, mesosternal process and legs except for femora reddish brown to black, pronotum, scutellum, elytra, propygidium, pygidium, femora and ventral surface except for mesosternal process yellowish brown to orange; dorsal surface with vitreous lustre, ventral surface with rather weak lustre.

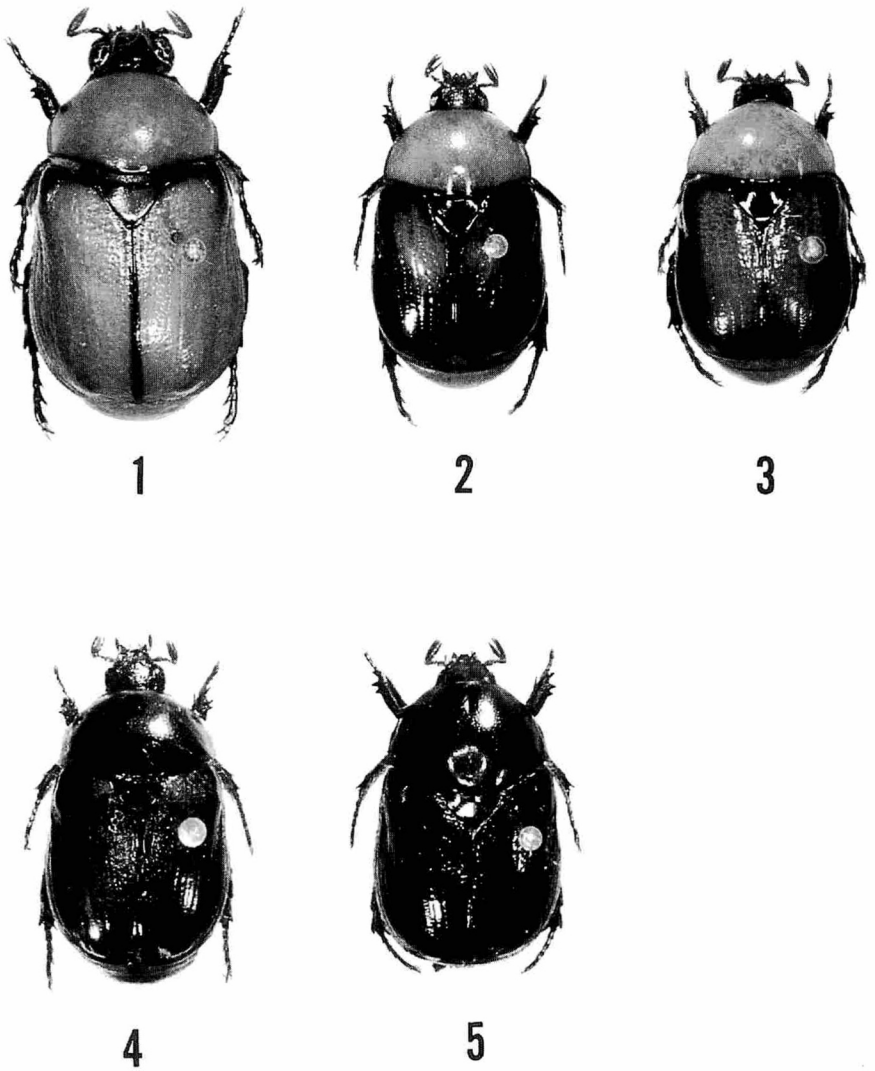
Head micro-shagreened (visible under ×60), with rather long, erect yellowish brown setae (0.75–1.03 mm in length) in middle; clypeus almost rectangular, reticulately rugulose; apical margin reflexed, feebly rounded at antero-lateral corner, with a pair of sharp upright teeth; lateral margins before eye-canthus slightly curved inwards in apical 1/2, subparallel in basal 1/3, with transverse high ridge at the base of eye-canthus in lateral 3/8 of clypeus; frons distinctly punctate, the punctures shallow and large, partly confluently reticulate in lateral portions, becoming sparser and smaller towards vertex; vertex sparsely punctate, the punctures intermixed with minute punctures; eyes feebly convex; interocular distance 1.87–1.97 times as wide as an eye diameter. Labrum transversely rectangular, with anterior margin slightly emarginate. Galea with a vestigial tooth, which is small and obtuse, located at basal 1/4. Length of antennal club shorter than interocular distance (0.875 : 1 in male).

Pronotum 1.47–1.61 times as wide as long, strongly narrowed apicad in apical 3/5, slightly narrowed basad in basal 2/5, with a pair of vague impressions at the middle of lateral portions; front angles obtusely angulate, hind angles rounded; lateral margins obviously rimmed, the rims becoming finer apicad in anterior halves, thick in posterior halves, and extending to hind margin at the level of humeral swellings; disc irregularly punctate, the punctures round and large in middle, partly coalescent in anterior portion, becoming rather denser, oblique and semicircular laterad, sparser and smaller posteriad; sides with short, decumbent yellowish brown setae (0.2–0.38 mm in length).

Elytra at the sides sinuous in basal 3/10, weakly widened in basal 3/5, then narrowed posteriad; distal margins slightly rounded; rims of lateral margins thickened in anterior 2/5, becoming finer in the remaining part, extending to the apico-sutural parts; sutural apices angulate and prominent; dorsum weakly convex, highest at basal 2/3; disc feebly microsculptured, the sculpture visible under ×60, with 12 rows of deep and round punctures; 2nd intervals irregularly scattered with small punctures.

Pygidium feebly microsculptured, irregularly punctate in middle, the punctures becoming denser and larger laterad and apicad, furnished with long, erect yellowish brown setae (0.875–1.375 mm in length) along lateral margins; outer margins rimmed, nearly straight in lateral portions, truncate at apex.

Metasternum scattered with setigerous punctures and densely clothed with long, decumbent yellowish brown setae (1.75–2.25 mm in length); mesosternal process very



Figs. 1–5. Habitus of *Parastasia* spp. —— 1, *P. pulupuluensis* sp. nov., holotype, ♂; 2–3, *P. masumotoi* sp. nov., 2, holotype, ♂, 3, paratype, ♂; 4–5, *P. fujiokai* sp. nov., 4, holotype, ♂, 5, paratype, ♀.

short, with rounded apex.

Abdominal sternites irregularly punctate, 2nd to 5th sternites with short, appressed yellowish brown setae (0.375–0.5 mm in length) in middle, and also with long, erect yellowish brown setae (0.875–1.0 mm in length) in lateral portions.

Protibiae tridentate, fore claws simple, acuminate, sickle-shaped and approximately equal in length; inner claws of middle and hind legs simply acuminate and curved; outer claw of middle leg incised apically, forming two branches, the lower

branch broader than the upper, ventral margin of the lower branch angulate, forming widest point at base; outer claw of hind leg incised at base, forming two branches, the lower branch very short, about 1/7 the length of the upper.

Holotype: ♂, Pulu Pulu, Sulawesi, IV–1995. Paratypes: 2 ♂♂, same data as for the holotype.

Notes. This new species resembles *P. discolor scutellaris* ERICHSON, 1845, but can be easily distinguished from the latter by the peculiar shape of galea and male genitalia.

Parastasia masumotoi sp. nov.

(Figs. 2, 3, 7, 12, 13)

Body length: 14.2–15.9 mm, width: 8.0–8.8 mm.

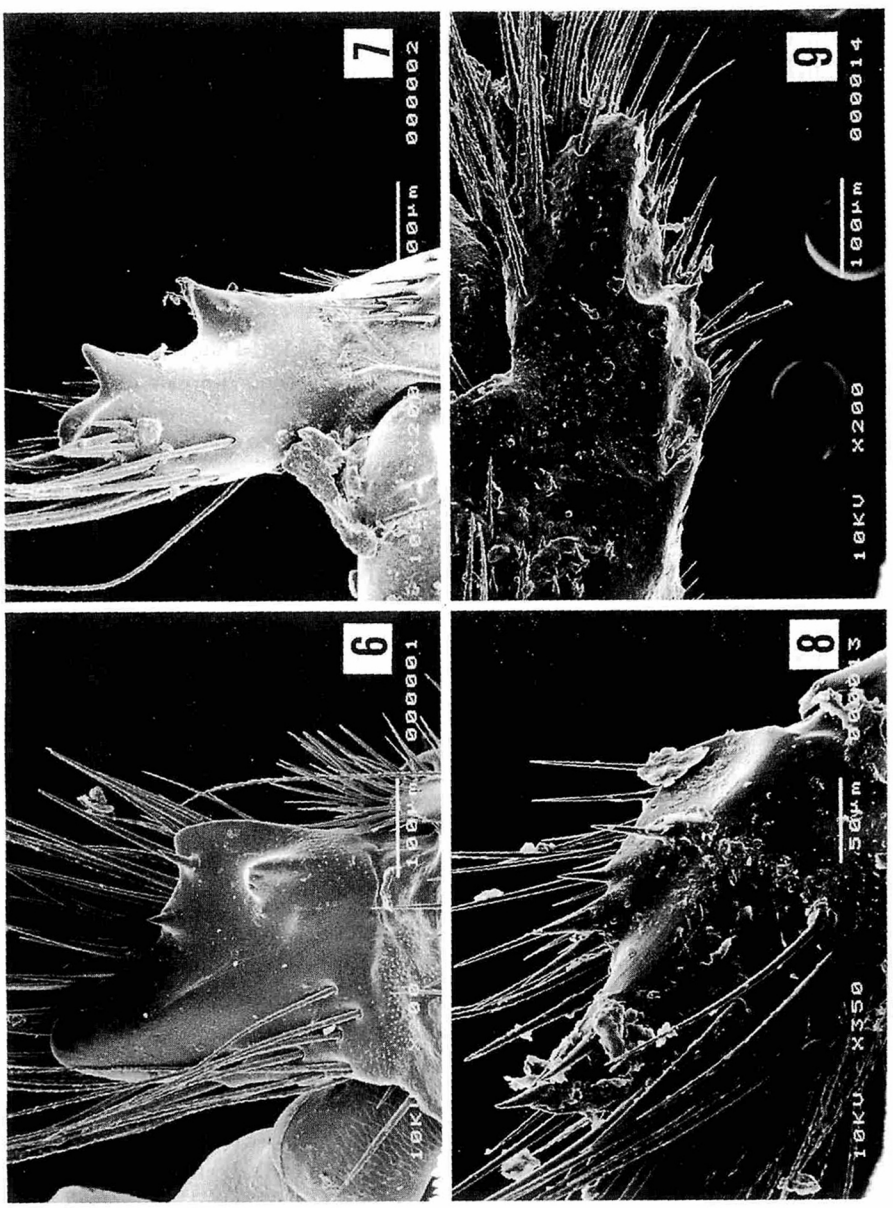
Antennae, margins of pronotum, scutellum, elytra, ventral surface and legs dark brown to black; elytron with a dark orange patch in anterior part, which is sometimes widened posteriad; pronotum, propygidium and pygidium orange; dorsal surface with strong vitreous lustre, ventral surface with rather weak lustre.

Head micro-shagreened, clypeus almost truncate, reticulately rugulose; apical margin obtusely acuminate, with a pair of upright teeth; lateral margins before eye-canthus almost parallel, with low transverse ridge at the base of eye-canthus in lateral 1/3; eye-canthus with short, erect reddish brown setae; frons distinctly punctate, the punctures large and shallow, sometimes connected with one another; vertex sparsely punctate, the punctures large and deep; eyes moderately convex; interocular distance 3.47–3.59 times as wide as an eye diameter. Labrum semicircular. Galea with two short teeth, of which the distal one is spinous, located at apical 1/4, and the proximal one stout and situated in basal half. Length of antennal club shorter than interocular distance (0.69–0.71 : 1 in male).

Pronotum 1.45–1.55 times as wide as long, strongly narrowed apicad in apical half, weakly narrowed basad, with a pair of vague impressions at the middle of lateral portions; front angles obtusely angulate, hind angles weakly angulate; lateral margins obviously rimmed, the rims fine in anterior half and thick in posterior, extending to hind angles; disc irregularly punctate, the punctures round in middle, partly coalescent in antero-lateral portions, becoming denser and larger laterad, sparser and smaller posteriad.

Elytra at the sides sinuous in basal 3/10, weakly widened in middle, then narrowed posteriad; distal margins rounded; rims of lateral margins thickened in anterior 2/5, becoming finer posteriad and extending to apico-sutural parts; sutural apices obtuse; dorsum weakly convex and highest at basal 1/4; disc feebly microsculptured, the sculpture hardly visible under ×60, with 11 rows of round punctures, the 1st, 2nd and 3rd rows of which are elliptical and sometimes connected with one another.

Pygidium feebly microsculptured, irregularly punctate in middle, the punctures reticulate rugulose in anterior portion, becoming sparser and smaller towards apical



Figs. 6–9. SEM photographs of galea. —— 6, *Parastasia pulupuluensis* sp. nov., ♂; 7, *P. masumotoi* sp. nov., ♂; 8–9, *P. fujiokai* sp. nov., 8, ♂; 9, ♀. Magnification ratios are indicated at the bottom of each photograph.

margin; outer margins rimmed, nearly straight in lateral portions, truncate at apex.

Metasternum with setigerous punctures, the setae long, suberect yellowish brown and 0.325–0.675 mm in length; mesosternal process short, with apex bluntly angulate in lateral view.

Abdominal sternites irregularly punctate, 1st to 5th sternites with short, decumbent yellowish brown setae (0.1–0.2 mm in length) in lateral portions.

Protibiae tridentate, fore claws simple, acuminate, sickle-shaped and approximately equal in length; inner claws of middle and hind legs simply acuminate and curved; outer claw of middle leg incised apically, forming two branches, the upper branch slenderer than the lower, about 1/2 the width of the lower at base; outer claw of hind leg incised at base, forming two branches, the lower one short, about 2/3 the length of the upper.

Holotype: ♂, Wiang Papao, Chiang Mai, Thailand, V–1995. Paratypes: 1 ♂, near Fang, Chiang Mai, Thailand, VII–1995; 1 ♂, Fang, Chiang Mai, Thailand, IV–1995.

Notes. This new species can be distinguished from other known species of the genus *Parastasia* by different coloration of the dorsal surface, the peculiar shape of galea and male genitalia.

Parastasia fujiokai sp. nov.

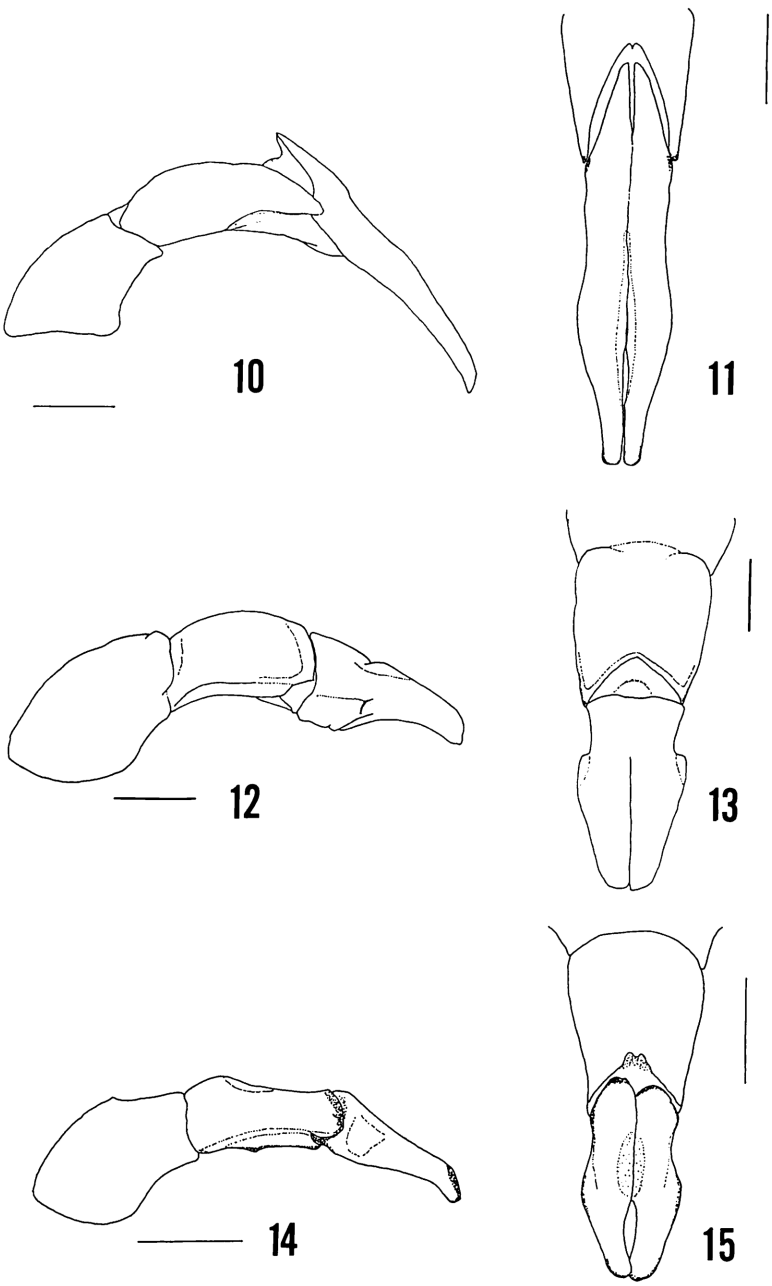
(Figs. 4, 5, 8, 9, 14, 15)

Body length: 12.0–19.2 mm, width: 7.0–10.4 mm.

Dorsal surface, ventral surface except for 6th abdominal sternite and legs blackish brown to black; pronotum sometimes with broad orange bands in lateral parts, and a narrow orange band in anterior portion; elytron with an orange patch in anterior part, which is sometimes widened posteriad; pygidium sometimes with broad orange band in marginal portions; middle and hind femora, 7th abdominal sternite and hind coxae sometimes orange; 6th abdominal sternite orange to dark orange; dorsal surface with vitreous lustre, ventral surface with rather weak lustre.

Head micro-shagreened, clypeus truncate, reticulately rugulose; apical margin distinctly acuminate, with a pair of upright teeth; lateral margins before eye-canthus feebly convergent, with a transverse low ridge at the base of eye-canthus in lateral 1/3, a shorter low ridge at the base of clypeus, and also with short, erect reddish brown setae at the apex of eye-canthus; frons reticulately rugulose, vertex sparsely punctate, the punctures large and deep in anterior and lateral portions; eyes moderately convex; interocular distance 3.0–3.1 (in male), 3.6–4.0 (in female) times as wide as an eye diameter. Labrum transversely rectangular, with anterior margin emarginate. Galea with a vestigial tooth at middle. Length of antennal club shorter than interocular distance (0.70–0.73 : 1).

Pronotum 1.44–1.48 times as wide as long, narrowed apicad in apical 1/3, almost parallel in male, feebly widened in female in remaining portion, with a pair of vague impressions at apical 1/3 of lateral portions; front angles obtusely angulate, hind an-



Figs. 10–15. Male genitalia (scale: 1mm). —— 10–11, *Parastasia pulupuluensis* sp. nov., 10, lateral view, 11, dorsal view; 12–13, *P. masumotoi* sp. nov., 12, lateral view, 13, dorsal view; 14–15, *P. fujiokai* sp. nov., 14, lateral view, 15, dorsal view.

gles rounded; lateral margins rimmed, the rims fine in anterior 1/3 and slightly widened in posterior 2/3, disappearing before hind angles; disc irregularly punctate, the punctures round in middle, partly coalescent in antero-lateral portions, becoming larger laterad, smaller posteriad.

Elytra at the sides sinuous in basal 1/4, widened towards the middle, then narrowed posteriad; distal margins rounded; rims of lateral margins thickened in anterior 1/4, then becoming finer and disappearing at hind corners; sutural apices obtuse; dorsum weakly convex and highest at middle; disc hardly microsculptured, the sculpture feebly visible under ×60, with 11 rows of small punctures, which are round to elliptical; 2nd intervals irregularly scattered with rounded punctures.

Pygidium densely, reticulately rugulose, with a pair of shallow, ill-defined depressions at lateral portions; outer margins rimmed, nearly straight in lateral portions, with apex truncate in male and rounded in female.

Metasternum reticulately rugulose and clothed with long, suberect yellow to orange setae (0.825–1.25 mm in length); mesosternal process short, with rounded apex.

Abdominal sternites irregularly punctate, 1st to 5th sternites with a row of short, suberect yellow setae (0.275–0.575 mm in length) in lateral portions, 7th sternite with short, decumbent yellow setae in anterior portion.

Protibiae tridentate, all claws simple, acuminate, sickle-shaped; outer claw of fore legs longer than inner claw of fore legs; claws of middle and hind legs approximately equal in length; outer claw of middle leg with incision near apex in male.

Holotype: ♂, Sumbawa Is., Indonesia, XII–1995. Allotype: ♀, same data as for the holotype. Paratypes: 12 ♂♂, 13 ♀♀, same data as for the holotype.

Notes. This new species can be distinguished from other known species of the genus *Parastasia* by different coloration of the dorsal surface and the peculiar shape of male genitalia.

要　　約

和田　薫・村本理恵子：タイ，セレベス島およびスンバワ島から発見された*Parastasia*属コガネムシの3新種．—— *Parastasia*属に属するコガネムシ，*Parastasia masumotoi*をタイから，*P. pulupuluensis*をセレベス島から，また*P. fujiokai*をスンバワ島からそれぞれ記載した．これらの種はいずれも，その特徴的な色彩，口器外葉の歯の形状および雄交尾器の形状から同属の他種とは容易に区別できる．

References

ARROW, G. J., 1917. Coleoptera Lamellicornia II (Rutelinae, Desmonycinae, and Euchirinae). *In the*: *Fauna of British India including Ceylon and Birma*. xiii+387 pp., 5 pls., 77 figs. Taylor & Francis, London.

KUIJTEN, P. J., 1992. A revision of the genus *Parastasia* in the Indo-Australian region (Coleoptera: Scarabaeidae, Rutelinae). *Zool. Verh.*, **275**: 3–176, 268 figs., 6 maps.

MACHATSCHKE, J. W., 1972–'74. Scarabaeoidea: Melolonthidae, Rutelinae. *In* WILCOX, J. A. (ed.),

Coleopterum Catalogus Supplementa, (ed. 2), (66): i–ii+1–361 [1972]+i+363–429 [1974]. Junk, 's-Gravenhage.

OHAUS, F., 1901. Ruteliden der alten Welt. *Dtsch. ent. Z.*, **1901**: 125–134.

——— 1903. Beiträge zur Kenntnis der Ruteliden. *Ibid.*, **1903**: 209–228.

——— 1911. Beiträge zur Kenntnis der Ruteliden 8. *Ibid.*, **1911**: 319–335.

——— 1934. Coleoptera Lamellicornia, Fam. Scarabaeidae, Subfam. Rutelinae, 1. *Genera ins.*, **199a**: 1–172, 6 pls.

——— 1938. A collection of Rutelinae from Mt. Kinabalu, British North Borneo. *J. fed. Malay Stat. Mus.*, **17** [1932–1935]: 122–127.

Elytra, Tokyo, **27** (1): 175, May 15, 1999

Replacement of a Preoccupied Name of a *Callistethus* Species (Coleoptera, Scarabaeidae, Rutelinae)

Kaoru WADA

3–13–19, Kokubunjidai, Ebina-shi, Kanagawa, 243–0413 Japan

WADA (1998) described *Callistethus parvus* from Sulawesi, inadvertently overlooking *C. parvus* ARROW, 1917, originally described from Assam. Since the former became a junior homonym of the latter, a new replacement name is proposed as follows:

Callistethus sulawesiensis nom. nov.

Callistethus parvus WADA, 1998, Ent. Rev. Japan, **52**: 97–98. [Nec ARROW, 1917].

References

ARROW, G. J., 1917. Coleoptera Lamellicornia II (Rutelinae, Desmonycinae, and Euchirinae). *In the*: *Fauna of British India including Ceylon and Birma*: xiii+387 pp., 5 pls, 77 figs. Taylor & Francis, London.

WADA, K., 1998. Four new species of the genus *Callistethus* BLANCHARD (Coleoptera: Scarabaeidae: Rutelinae) from Sulawesi and a redescription of *Callistethus riedeli* LANSBERGE. *Ent. Rev. Japan*, **52**: 93–101.