

# 琉球列島のツヤハナムグリ属, I

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## The genus *Protaetia* Burmeister of the Ryukyu Archipelago, I

by

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*Protaetia* (ツヤハナムグリ属) はコガネムシ科の中でも、主として緑色に輝く美しい大型種を含んだ仲間で、とくに琉球列島では島嶼ごとに著しい地理的変異を示している。これらのことから、甲虫研究者の注目をあび現在までにかなりの種または亜種が記載されてきた。筆者らも、これまでに相当数の資料を採集し、また友人達の標本を検査することができた。そこで、従来の知見を総合しておくのも便利であろうと考え、原記載を再録するとともに、手元にある標本について全形を写真で示し、♂-genitalia を図示しておきたいと思う。また、前胸背および翅鞘には多くの白紋を有するが、その出現状態はかなり規則的でもあり、丁度 Mikšić (1963) がその紋に番号を付して模式化しているのを参考にしてここでもそれに従って模式図を用いて白紋についても一部触れておいた。さらに、僅かではあるが新しい知見を加えたが、それぞれのデータは必要最小限にとどめ、比較のため台湾産種に言及したものもある。シノニムに関することは重要であるがここではそのほとんどを除き、現在認められている種または亜種に限り述べ、新型の記載もさけた。

この小文をまとめるに当り、桐棚学園野村鎮氏からは文献ならびに Type 標本の写真などひとかたならぬご援助をいただき、国立科学博物館黒沢良彦博士からは有益なご助言をいただいた。さらに、愛媛大学農学部石原保教授、立川哲三郎助教授、宮武陸夫氏、久松定成氏、堀義宏氏、酒井雅博氏、高木真人氏、名城大学農学部岡留恒丸助教授、有田豊氏、神奈川県園芸試験場大林延夫氏、愛知教育大学大平仁夫博士など多くの方に何かとお世話になった。ここに記してこれらの諸彦に厚くお礼申し上げる。

### 1. *Protaetia culta yaeyamana* Nomura カバイロハナムグリ

*Protaetia culta yaeyamana* Nomura, 1965. Entom. Rev. Japan 18 (1) : 9.

"This subspecies is very similar to the nominate form, but it differs from the latter in the following points:-1. Patches on pronotum and elytra more numerous; 2. lateral margins of pronotum angularly curved behind the middle; 3. mesosternal process subrhombic, with anterior margin obtusely angulate at the middle. Body length: 20-22 mm.

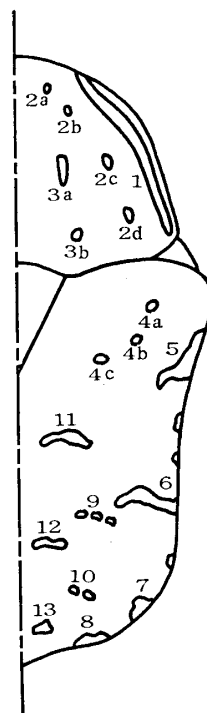


Fig. 1. Model of elytral spots.

Distribution: Yonaguni Is., Ishigaki Is.

Holotype: ♂, paratypes: 1♀ Yonaguni Is., 9 Aug. 1963, leg. R. AOKI; 12♂, 5♀, Mt. Urabe, Yonaguni Is., 12 Jul. 1964, leg. N. OJIBAYASHI; 1♀, Mt. Banna, Ishigaki Is., 14 Jul. 1963, leg. Y. HAMA (in coll. S. NOMURA, T. SHIBATA & N. OJIBAYASHI)."

背面は黄褐色ないし茶褐色で、翅鞘には黄白紋を有する。与那国島産の個体は原亜種(台湾)に比べて翅鞘の斑紋が僅かに不明瞭となり、12紋の山型が著しく二重で10紋へつながらる傾向にある。石垣島産の個体は斑紋がより不明瞭となるが出現状態は台湾産の個体に似ている。台湾産の個体は12紋の山型は単独で、10紋へつながらないし、6紋が顕著に現われる。

♂-genitalia は与那国島産の個体では valvae が細く先端でやや膨大するが、台湾産の個体は先端が膨大せず左右に開く、石垣島の♂を検することができなかった。

分布: 与那国島, 石垣島。

2a. *Protaetia exasperata exasperata* (Fairmaire) オオシマアオハナムグリ

*Cetonia exasperata* Fairmaire, 1898. Ann. Soc. ent. France 67: 386.

"-Long. 17 à 21 mill. -Ovata, sat crassa, viridi-aenescens, nitida, plus minusve interdum cuprascens, antennis piceis; capite prothoraceque fortiter rugoso-punctatis, illo antice attenuato, clypeo minus punctato, apice sinuato, lobis lateralibus obtusis, paulo reflexis, antennis rufo-piceis; prothorace elytris parum angustiore, antice arcuatim angustato, medio linea polita, ad scutellum ditatata signato, dorso basi utrinque impressione transversim ovata parum profunde signato, margine postice ad scutellum sinuato, angulis rotundatis; scutello polito, apice obtuso; elytris ovatulo-quadratis, fortiter sat dense punctatis, sutura et utrinque costulis 2 elevatis, interstitiis medio paulo depressis et carioso-punctatis, parte laterali rugosa et longitudinaliter plus minusve impressa, dorso utrinque signaturis albo-pubescentibus minutis, 2 transversis prope suturam et aliquot aliis ab humero ad apicem et puncto apicali plus minusve evidentibus signatis, angulo suturali fere obtuso; pygidio fortiter dense strigoso-punctato; subtus laevis, pectore et femoribus cum tibiis dense fulvo-pilosis, abdomine rarius punctato, pedibus mediocribus, tibiis rugosis, anticis parum fortiter dentatis, intermediis fere medio fortiter angulatis, dein fere emarginatis.

Archipel Liou-Kiou: Oshima. -Coll. Oberthür et la mienne.

Cet insecte est remarquable par sa ponctuation rugueuse, son chaperon presque bilobé, ses très petites taches blanches, la saillie mésosternale est étranglée à la base, large et presque tronquée à l'extrémité; son faciès est un peu celui de la *C. Karelnei*."

奄美大島産の個体は♂に光沢がなく、やや黄色味を帯びた緑色で、翅鞘の白紋は不明瞭、腹部は緑色がかった赤銅色。1♂ (Hatsuno, Amami-Ōshima, July 28, 1963, M. Satō and N. Ohbayashi) ではあるが赤色を帯びた光沢を有する個体を採集したことがあり、徳之島産の個体と区別できない。何等かの要因によって徳之島から移入したのではないだろうか。

徳之島の個体は♂♀ともに光沢があり、とくに♂は赤銅色の光沢が強い。翅鞘の白紋は明瞭に現われる。奄美大島の上記1個体を除いては翅鞘の色彩、光沢、白紋によって区別できるので亜種として一応分けてもよいのではと考える。

分布: 奄美大島, 徳之島。

2b. *Protaetia exasperata erabuana* Nomura クチノエラブアオハナムグリ

*Protaetia exasperata erabuana* Nomura, 1964. Entom. Rev. Japan 16 (2): 58, pl. 8, fig. 16.

"Coppery, tarsi and antennae piceous, with more or less greenish lustre on following

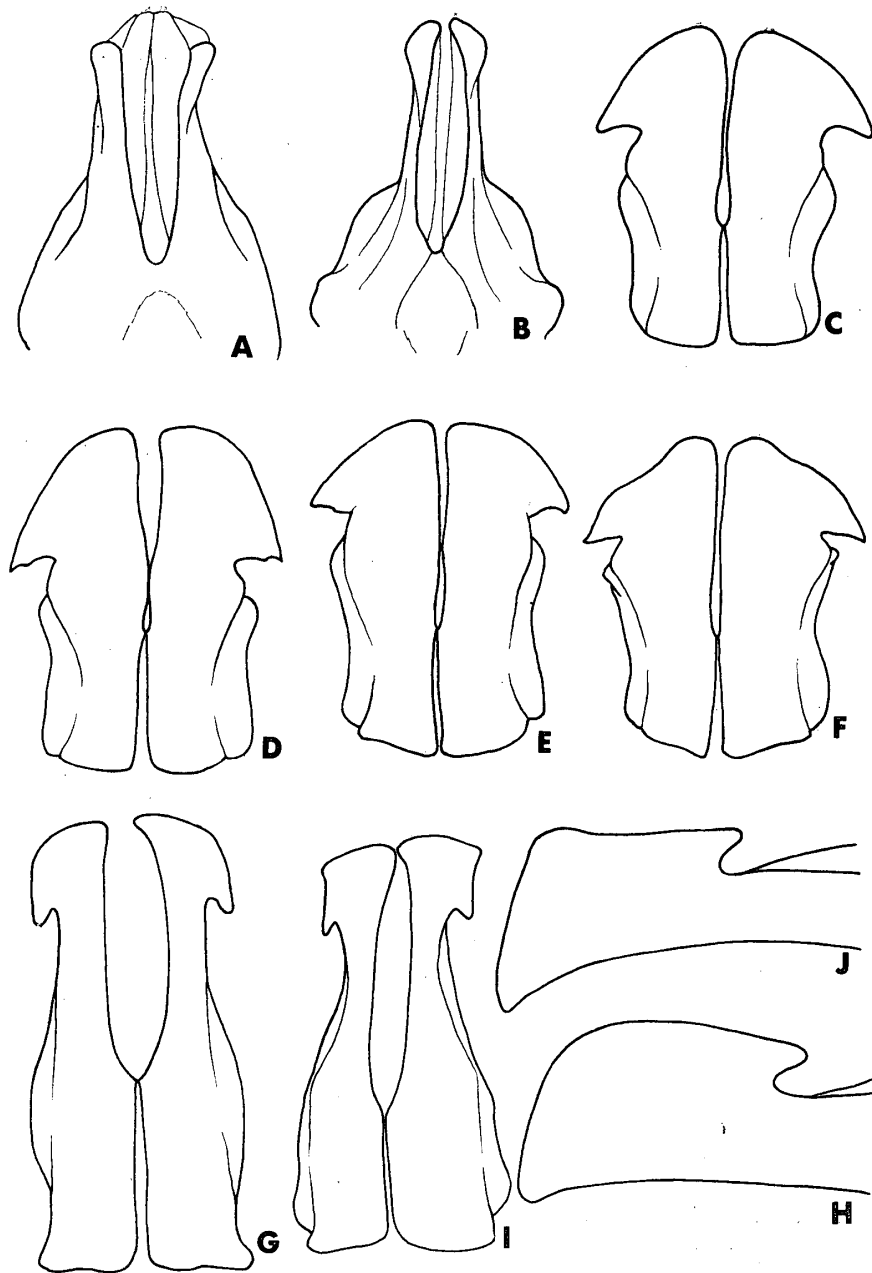


Fig. 2. Apical portion of male genitalia.

- A. *P. culta culta* Waterhouse (Formosa)
- B. *P. culta yaeyamana* Nomura (Yonaguni-jima)
- C. *P. exasperata suwanoseana* Nomura (Suwanose-jima)
- D. *P. exasperata exasperata* (Fairmaire) (Amami-Ôshima)
- E. *P. exasperata exasperata* (Fairmaire) (Tokuno-shima)
- F. *P. exasperata satoi* Nakane (Okinawa-Hontô)
- G. *P. formosana* (Moser) (Formosa)
- H. Ditto
- I. *P. formosana* (Moser) (Yonaguni-jima)
- J. Ditto

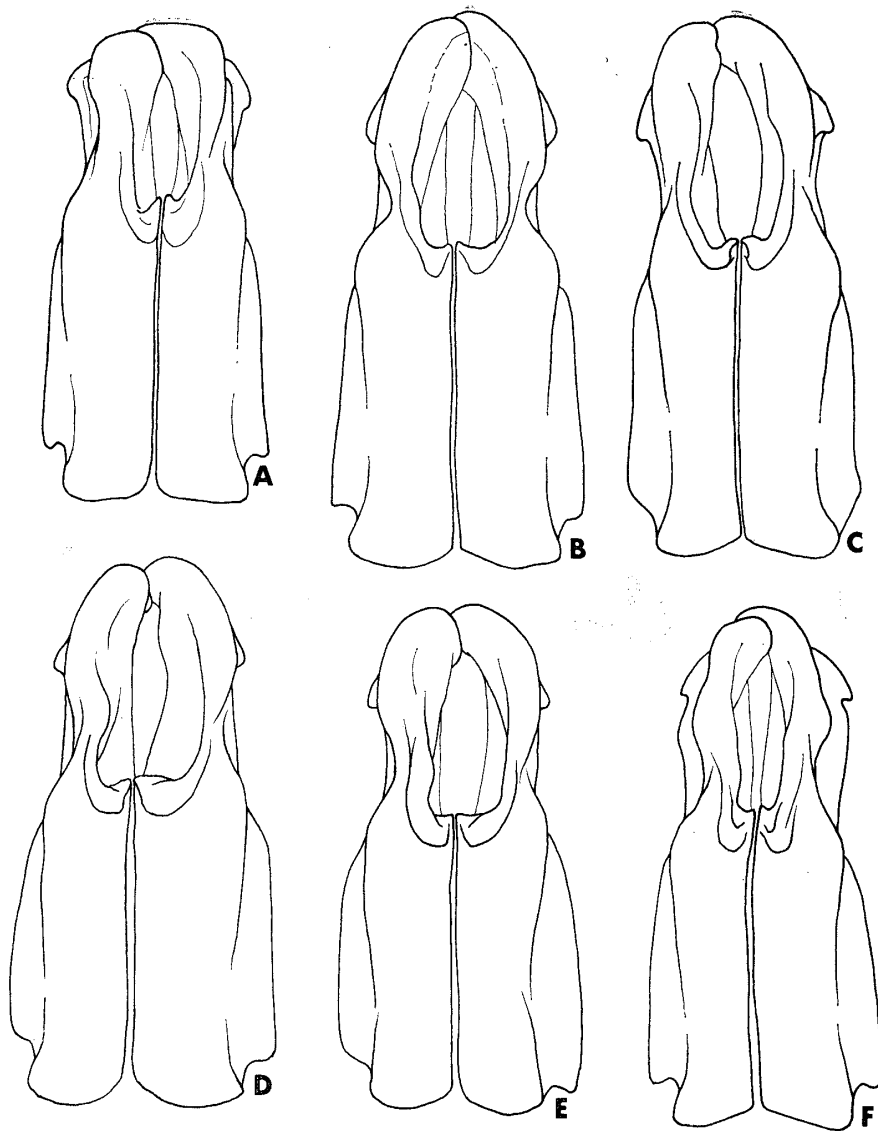


Fig. 3. Apical portion of male genitalia.

- A. *P. ishigakia okinawana* Kurosawa (Okino-erabu-shima)
- B. *P. ishigakia okinawana* Kurosawa (Okinawa-Hontô)
- C. *P. ishigakia miyakona* Kurosawa (Miyako-jima)
- D. *P. ishigakia ishigakia* (Fairmair) (Ishigaki-jima)
- E. *P. ishigakia ishigakia* (Fairmair) (Iriomote-jima)
- F. *P. ishigakia yonakuniana* Nomura (Yonaguni-jima)

parts: head, pronotum, scutellum, mesothoracic epimeron, apical area and suture of elytra and tibiae. Pronotum bears or has not two small white spots at the middle. White spots of elytra and of pygidium small and scanty, those of abdomen absent.

Pronotum coarsely and densely punctate. Elytra coarsely and densely punctate on basal area, rugosely on depressed part and lateral and apical areas, sparsely punctate on costae and humeral and apical calli, with apical angles obtusely and feebly protrude. Each abdominal sternite rather closely punctate near front margin, very sparsely, almost smooth on the rest area; anal sternite densely punctate in female. Length: 22 mm.

Distribution: Kuchino-erabu Is.

Holotype: ♀, paratype: 1♀, Kuchino-erabu Is., 26 Jul. 1963, leg. H. KONISHI (in coll. S. NOMURA & T. SHIBATA).

This subspecies differs from the other forms of this species in the larger body, the different colourations and the coarser and denser punctures on the elytra."

原記載以降記録がなく、筆者らも残念ながら標本を検査することができなかった。野村氏のご好意による Type 標本の写真を示しておいた。

分布：口之永良部島。

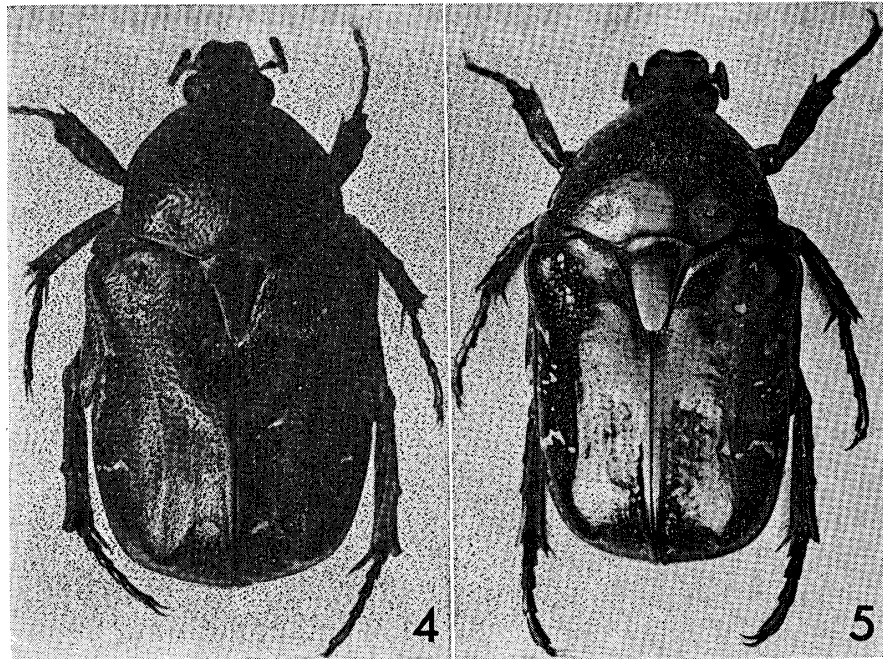


Fig. 4. *P. exasperata erabuana* Nomura (Kuchino-erabu-shima) (after Nomura, 1964)

Fig. 5. *P. orientalis tokarana* Nomura (Nakano-shima) (after Nomura, 1964)

2c. *Protaetia exasperata nakana* Nakane トカラアオハナムグリ

*Protaetia* (*Potosia*) *exasperata nakana* Nakane, 1956. Sci. Rep. Saikyo Univ. (Nat. & Liv. Sci.) 2 (2) A: 61, pls. 1-3, 5, 2-7.

"♂. Coppery, bronzy to greenish bronzy (f. *typica*), or above black with bluish, valescent to greenish tinges (f. *tsuzimotoi* nov.), without mat green covering above. Punctuation of body above distinctly coarser than that of typical *exasperata*. Pronotum bearing a few small tomentous white spots on both sides, as well as two pairs of spots on disc and a marginal stripe on each side. Elytral tomentous white spots more developed than those of *exasperata*.

Body length: 19-23 mm.

Holotype (♂) and 2 paratypes (♂): Nakanoshima, 6. VI. 1953, T. Nakane & O. Tsuzimoto leg.; 3 paratypes (♂) (f. *tsuzimotoi*): Nakanoshima, 9. VI. 1953, O. Tsuzimoto & S. Ueno leg. A few other paratypes are in the collection of Mr. M. Iga."

♂ ♀ともに光沢があり、背面は藍色を帯びた濃緑色でときに藍黒色 (f. *tsuzimotoi*) となる。翅鞘の白紋は明瞭に現われる。♂を検査する機会がなかった。

分布：中之島。

2d. *Protaetia exasperata suwanoseana* Nomura スワノセオハナムグリ

*Protaetia exasperata suwanoseana* Nomura, 1964. Tôhō-Gakuhô 14: 69.

"Male: body dark green, shining, with tarsi blackish. White markings on pronotum, elytra and pygidium minute and scanty, head decorated with small white spots, abdomen with small round ones on lateral margins of 1st to 4th sternites and sometimes bears sublateral transversal markings along hind margins of 2nd and 3rd sternites. Surface coarsely and densely punctate, confluent punctate at depressed parts of elytra, rugosely at apical areas.

Female: body blackish bronzy, With feeble greenish lustre, decorated with minute and scanty white spots on elytra, small ones on lateral margins of 1st to 4th abdominal sternites. Surface coarsely and very densely punctate, confluent at sides of pronotum and of elytra, rugosely at depressed parts and apical areas of elytra. Median longitudinal smooth area of pronotum extending from base to the middle, Whereas in female of the other subspecies it reached front margin.

Body length: ♂, 18-20 mm. ; ♀, 19-21.5 mm.

Distribution: Suwanose-jima (Tokara Islands).

Holotype: ♂, allotype: ♀, paratypes: 3♂, 1♀, 31 May 1962, leg. M. Satô & S. Ishida (in coll. S. Nomura & M. Satô).

This subspecies may be distinguished from the other forms in the different colouration, the smaller and more scanty white markings on the surface, and in the female the short median longitudinal smooth area of the pronotum."

♂は濃緑色で光沢を有する。♀はやや緑色を帯びた黒青銅色。腹部は濃緑色。翅鞘の白紋は小さい。

♂-genitaliae は valvae 先端の膨大部が原亜種のそれより短かい。

分布: 訪諏之瀬島。

2e. *Protaetia exasperata uenoi* Nomura エラブアオハナムグリ

*Protaetia exasperata uenoi* Nomura, 1960. Tôhō-Gakuhô 10: 75.

"Body greenish bronzy, shining in both sexes. Front margin of clypeus strongly reflexed, lateral margin of pronotum sinuated at frontal half in profile. Sutural angles of elytra not produced. Median longitudinal line of metasternum fine and reached to hind margin, abdomen sparsely punctate. 3rd tooth of front tibia distinct, but not acute.

Body length: 21.5-18mm. Holotype: ♂, allotype: ♀, paratypes: 2♂♂, Mt. Ohyama, Okinoerabu-jima, 2 Aug. 1958, leg. Shun-Ichi Uéno. (in my coll.); 5♂♂, 3♀♀, ditto, (in coll. Nat. Sci. Mus., Tokyo).

This new subspecies nearly allied to *nakana* Nakane by lacking mat green covering above in both sexes, but differs from the latter and other subspecies by the following points: 1. lateral margin of pronotum sinuated at frontal half in profile; 2. sutural angles of elytra not produced; 3. white spots of body small and indistinct."

♂♀ともに光沢があり濃緑色。腹部は赤銅色を帯びた濃緑色。翅鞘の白紋は小さい。♂を検することができなかった。

分布: 沖之永良部島。

2f. *Protaetia exasperata satoi* Nakane オキナワアオハナムグリ

*Protaetia (Potosia) exasperata satoi* Nakane, 1956. Sci. Rep. Saikyo Univ. (Nat. & Liv. Sci.) 2 (2) A: 61, pls. 1-4, 6, 2-8.

"Mr. Kaku Sato has kindly lent me a pair of examples of *exasperata* from Okinawa and Mr. Yoshio Icho presented me a male example of the same species from Amami-Oshima (type-locality of *exasperata*). Comparing these specimens with each other I have found some, though slight, differences between them. The male of Okinawa has somewhat broader body form, less strongly reflexed front margin of head, a pair of white tomentous spots behind anterior margin along sides of pronotum and uniformly impressed marginal lines of metasternum along mesocoxae converging to base of metasternal process. The last character is found also in female. I will name the form of Okinawa: *Protaetia (Potosia) exasperata satoi* subsp. nov.

Holotype (♂) & allotype (♀): Izumi, Okinawa, 1. VII. 1952, K. Sato leg. (in coll. Yokohama Plant Protection Station)"

♂は光沢なく銅緑色。腹部は緑色を帯びた赤銅色。翅鞘の白紋は4, 11紋が縮小する。

♂-genitalia の valvae 先端部前縁は波状となる。

分布：沖縄本島。

3. *Protaetia formosana* (Moser) タイワンツヤハナムグリ

*Liocola formosana* Moser, 1910. Ann. Soc. ent. Belgique 56: 356.

"-*L. brevitarsi* LEWIS var. *Fairmairei* KRTZ similis. Supra subtusque rubrocuprea, nitida, non nullis maculis albis ornata. -Long. 21 mill.

Hab.: Formosa

*L. brevitarsis* LEWIS ist nicht nur in der Färbung sondern auch in der Skulptur sehr variabel. *L. formosana* sthet nun der var. *Fairmairei* in der Färbung, Bildung des Clypeus und der Skulptur am nächsten. Die Färbung ist bei *formosana* dunkler Kupfrig und auch die Tarsen sowie der Grund der Nadelrisse sind von gleicher Farbe. Der Clypeus hat einen schwach aufgebogenen, nicht ausgebuchteten Vorderrand. Die Form des Halsschildes ist dieselbe wie bei *brevitarsis*, seine Seitenrandlinie reicht bis zum Vorderrande, der Vorderrand selbst ist in der Mitte schwach buckelig gewölbt. Neben den Seitenrändern befinden sich grobe Punkte und kurze Nadelrisse, während die Scheibe des Halsschildes in der Mitte fast glatt ist. Das Halsschild ist entweder ganz ungefleckt oder es zeigen sich einige sehr kleine weisse Sprenkel an denselben Stellen wie bei *brevitarsis*. Die Flügeldecken sind in der Schildchengegend vollkommen glatt, in den hinteren Vertiefungen neben der Naht mit bogenförmigen Nadelrissen versehen, neben den Seitenrändern queranelrissig. Sie zeigen nur einige kleine weisse Fleckchen, nämlich am Anfang und Ende der Discoidaldepression und neben den Seitenrändern. Das Pygidium ist sehr dicht nadelrissig und trägt vier kleine weisse Makel vor der Basis und zuweilen noch zwei vor der Spitze. Die Unterseite ist in der Mitte fast glatt, die Seiten sind nadelrissig und ockergelb behaart, während die Behaarung bei *Fairmairei* hellgelb ist. Auch ist die Behaarung länger und bilden die Haare an den Seiten der Abdominalsegmente kleine Büschel. Auf der Brust fehlen weisse Tomentfrecke oder es befindet sich nur ein kleiner Fleck in den Hinterecken: ebenso sind kleine Tomentflecke in den Hinterecken der Bauchsegmente nur bei einem Exemplar vorhanden, während sie bei den übrigen fehlen. Die Flecke beiderseits der Mitte des Abdomens sind

nur schwach angedeutet. Form des Brustfortsatzes und Bezeichnung der Schienen sind dieselben wie bei *brevitarsis*.

Ich würde *formosana* nur als eine Varietät der *brevitarsis* angesprochen haben, wenn der Forceps des ♂ nicht abweichend gebildet wäre. Bei *brevitarsis* verbreitern sich die Forcepsparameren nach dem Ende zu nur schwach und allmählich. Bei *formosana* ist diese Verbreiterung eine plötzliche und bedeutend grössers und sind an der Stelle, wo die Verbreiterung beginnt die Aussenränder der letzteren nach hinten dornartig verlängert."

台湾から記載されたが、黒沢 (1959) によって与那国島から記録された。与那国島の個体は 11 紋が明瞭に現われ、腹部第 5 節両側の白紋以外は消失する傾向にあることによって台湾産の個体より区別でき、さらに ♂-genitalia の valvae 先端部が角ばることによっても相違する。別亜種として区別できるのではないだろうか。

分布：台湾，与那国島。

4a. *Protaetia ishigakia ishigakia* (Fairmaire) イシガキシロテンハナムグリ

*Cetonia ishigakia* Fairmaire, 1898. Ann. Soc. Soc. ent. France : 14.

"- Long. 18 mill. - Ressemble beaucoup à la *C. philippinensis* G. P., mais la coloration est d'un bronzé verdâtre moins éclatant, les dessins blancs sont moins tranchés, plus étroits et un peu laciniés, la bordure marginale du corselet est plus étroite, moins eutièrè; outre les deux taches discoïdales, il y en a d'autres petites, peu régulières, sur les élytres; les taches dorsales ne forment pas de bandes assez régulièrement transversales et paraissent composées de petites taches agglomérées, les bords latéraux ont de nombreuses taches, les pièces axillaires ont à peine quelques points blancs, le pygidium a aussi deux bandes blanches mais peu régulières et souvent tranctionnées, les taches du dessous sont analogues mais plus étroites. La tête est ponctuée de la même manière, avec une fossette bien visible de chaque côté entre les yeux, elle est plus élargie en avant avec les côtés un peu arqués, le bord antérieur du chaperon est aussi légèrement sinué et déprime au milieu; le corselet paraît moins atténué en avant, les côtés étant plus arqués, la ponctuation est forte, serrée sur les côtés, plus écartée au milieu, et la base est impressionnée de chaque côté; les élytres sont moins carrées et paraissent un peu plus longues, fortement ponctuées presque partout, la suture est relevée avec l'angle apical droit. Le dessous du corps est aussi très brillant au milieu, mais d'un bronzé verdâtre, assez fortement ponctué sur les côtés, avec une petite fossette sur le bord supérieur des segments abdominaux; le métasternum est nettement sillonné, la saillie est semblable, un peu étranglée et arrondie, les tibias antérieurs sont bidentés chez le ♂, mais la dent supérieure à peine distincte, et tridentés chez la ♀, les tibias sont aussi velus en dedans, les tarses sont sensiblement plus longs."

*Protaetia ishigakia iriomoteana* Nomura, 1964. Entom. Rev. Japan 16 (2) : 59, pl. 8, fig. 19. (syn. nov.)

"This is very closely allied to typical *ishigakia* (pl. 8, f. 18), but differs from the latter in the different colourations as follows :

Body rufous, with feeble greenish reflections. White spots of the body somewhat large and numerous. Length : 18.5-21mm.

Distribution : Iriomote Is.

Holotype : ♂, paratype : 1♂, Iriomote Is., 29 Jul. 1962, leg. H. NOMURA & Y. HAMA (in coll. S. NOMURA & T. SHIBATA)."



赤褐紫色で緑色の光沢を有する。翅鞘の白紋はこの仲間の亜種中最も発達しており、3a 紋が顕著、5~7間の小紋は大きく互に接し、6 紋と9 紋は接し内方によく伸張し11 紋の直下に達する。腹部は緑色を帯びた赤褐色。波照間島産の個体(1♂, Hateruma-jima, Aug. 13, 1968, H. Ôhira leg.) は9 紋があまり伸長しない以外は原亜種そのものである。また、多くの標本を検すると subsp. *iriomoteana* は亜種として区別することが困難である。野村氏のご了解のもとにここでは原亜種の範疇に含めて取り扱った。

分布：石垣島，西表島，波照間島。

4b. *Protaetia ishigakia kikaiana* Nakane キカイシロテンハナムグリ

*Protaetia ishigakia kikaiana* Nakane, 1960. Entom. Rev. Japan 12: 6.

"Upper surface bronzy green, with coppery tints in certain light; lower surface coppery with greenish tinges. Pronotum, pygidium, and abdomen having no white tomentose patches or spots. Elytra bearing white tomentose spots, but the spots small and very sparse, much less conspicuous than in other subspecies, which have always white patches or spots on pronotum, pygidium and abdominal sternites. 17-18 mm. Holotype (♂), allotype (♀) & 4 paratypes: Is Kikaigashima, east of Amami-Ôshima, 9. III. 1954, R. KAWASAKI leg. (in coll. NAKANE & Yokohama Plant Protection Station)."

標本を直接検することができなかったが、野村氏のご好意で全形写真を示すことができた。  
分布：喜界ヶ島。

4c. *Protaetia ishigakia okinawana* Kurosawa オキナワシロテンハナムグリ

*Protaetia ishigakia okinawana* Kurosawa, 1959. Bull. Nat. Sci. Mus. Tokyo 44: 339, fig. c.

"Different from typical *ishigakia* and the race *miyakona* in the following points: (1) Body robuster, less convex, and more densely punctate with the punctuation at the basal angles of pronotum similar to that of *miyakona*; (2) Elytral costae inconspicuous; (3) White patches on pronotum and elytra smaller and sparser.

Length: 18mm. (except the head); width: 10.5mm. (at humeri).

Habitat: Okinawa, Loo-Choo Is.

Holotype (♀): Shuri, Okinawa (2. vii. 1938, K. Morishita lgt.)"

暗緑色で、翅鞘の白紋はやや顕著に現われ、11, 6 紋はよく発達し9 紋を経て互に接する。腹部はやや赤味を帯びた暗緑色。

沖之永良部島の個体は、黄銅光沢を伴った緑色で、翅鞘の白紋はよく発達するが、11 紋が逆八状となり、9 紋は帯状で顕著に現われる。翅鞘の点刻は沖縄産の個体よりもやや強い。腹部は緑色で、黄銅光沢を有する。これに加えて、♂-genitalia も valvae 先端のくびれがさほど著しくないなどの特徴をもっており、別亜種として区別してよいのではないかと考える。

分布：沖縄本島，沖之永良部島。

4d. *Protaetia ishigakia miyakona* Kurosawa ミヤコシロテンハナムグリ

*Protaetia ishigakia miyakona* Kurosawa, 1959. Bull. Nat. Sci. Mus. Tokyo 44: 339, fig. b.

"Different from typical *ishigakia* Fairmaire from Ishigaki-jima, an island in Yaeyama Group of the Loo-Choos, in the following points: (1) Body, especially on elytra, more reddish; (2) Punctuation at the basal angles of pronotum denser; (3) White patches on pronotum and elytra denser and rather numerous.

Length: 17.5mm. (except the head); width: 10mm. (at humeri)

Habitat: Miyako-jima, Loo-Choo Is.

Holotype (♂): Miyako-jima (without data, T. Kano lgt.)”

背面は暗緑色で赤褐色気味の光沢を有する。翅鞘の白紋は原亜種に比較してやや小さく数が多く、11紋は小さい、腹部は赤褐色。

分布：宮古島。

4e. *Protaetia ishigakia yonakuniana* Nomura ヨナクニシロテンハナムグリ

*Protaetia ishigakia yonakuniana* Nomura, 1964. Entom. Rev. Japan 16 (2): 59, pl. 8, fig. 20.

“Body coppery-purple, with white spots smaller and more scanty. Lareral ridges of clypeus feeble and obsolete. Sides of promotum somewhat angulately curved at the middle, nearly straight at spical and basal half. Elytra somewhat sparsely, not rugosely punctate at sides and on depressed areas near suture. First costa at depressed area stout and noticeable.

Length: 18.5mm.

Distribution: Yonakuni Is.

Holotype: ♀, Yonakuni Is., 9 Aug. 1963, leg. R. AOKI (in coll S. NOMURA)

This subspecies differs from the nominate form in the different colourations and the smaller and scanty white spots of the body.”

背面は濃紫色で、翅鞘の白紋は原亜種より小さく、9, 11, 12紋は小さい。腹部は紫赤褐色。

分布：与那国島。

5a. *Protaetia lewisi lewisi* (Janson) リュウキュウオオハナムグリ

*Cetonia Lewisi* Janson, 1888. Ann. Mag. Nat. Hist. (6) 1: 194.

“Viridis, nitida, tibiis tarsisque aeneis vel cupreis; elytris postice sparsim albo-maculatis; clypeo elongato, lateribus elevatis, apice anguste reflexo, sinuato; thorace margine postico ante scutellum fortiter emarginato; scutello lato, apice rotundato; processu mesosterni producto valde dilatato.

Long. 26-30mm.

Var. elytris immaculatis.

Shining green, slightly golden, tibiae and tarsi brassy or coppery, elytra in some specimens with sparse white spots behind. Head rather coarsely punctured, slightly longitudinally convex, the clypeus elevated at the sides, the apex narrowly reflexed and slightly emarginate. Thorax very finely and sparsely punctured on the disk, the sides more coarsely punctured, slightly impressed on each side behind, the base produced and deeply emarginate before the scutellum, the lateral angles rounded. Scutellum finely punctured at the base, broad and rounded at the apex. Elytra very sparsely punctured on the disk before the middle, behind the middle and the sides with irregular rows of semicircular punctures, which become closer and more confused towards the apex. Pygidium coarsely and sparsely punctured, strongly convex towards the apex, a small deep fovea near the lateral angles. Beneath coarsely strigose at the sides, the abdomen coarsely punctured at the sides and apex; mesosternal process large, strongly dilated, and rounded in front. Legs coarsely punctured and strigose; femora and tibiae fringed with pale golden-brown hairs, outer apical spur of the posterior tibiae distinctly bisinuate. The female is larger than the male, more strongly punctured, with the pygidium less convex and broadly impressed on each side; the legs are

stouter and the spurs of the posterior tibiae are broader and scarcely sinuate.

Loo Choo Islands (*H. Pryer*).

This fine species differs from *C. Confuciusana*, Thoms., in having a more elongate clypeus, with the lateral margins strongly elevated and the apex more narrowly reflexed, the thorax more deeply emarginate at the base, the scutellum broader at the apex, the pygidium with a fovea at the sides, the punctuation of the upperside more sparse, the mesosternal process much more produced and dilated, and the spurs of the posterior tibiae distinctly bisinuate."

背面は金緑色で、翅鞘には白紋が僅かに現われるにちぎない。宮古島、石垣島の分布は最近の移動によるものと野村（1966）は考察しているが、筆者ら自身も船上のマストにとまっている個体を採集したこともある。

分布：沖縄本島，宮古島，石垣島。

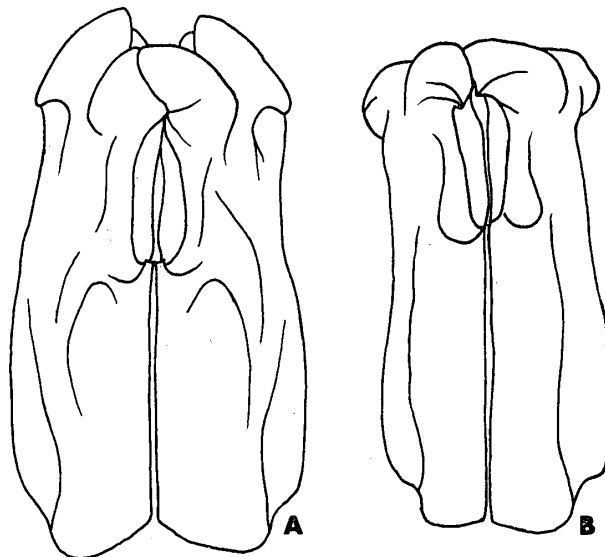


Fig. 6. Apical portion of male genitalia.

A. *P. lewisi* (Janson)

B. *P. lewisi leachi* Kurosawa

5b. *Protaetia lewisi leachi* Kurosawa アマミオオハナムグリ

*Protaetia lewisi leachi* Kurosawa, 1959. Bull. Nat. Sci. Mus. Tokyo 44: 337, fig. f.

"Body entirely dark or bright coppery-brown, nitidous, with the legs, margins of each sternum, each pleuron and posterior coxae more reddish, but the body not green or golden as the typical *lewisi* Janson; sternal process larger, more strongly produced anteriorly, and more strongly constricted at the base: the white patches on elytra more distinct than the typical *lewisi* Janson from Okinawa.

Length: 23-28mm. (except the head); width: 14-17mm. (at humeri)

Habitat: Amami-Ōshima

Holotype (♂): Ōshima (vii-viii, 1879, J. B. Ferrié lgt.) (Coll. E. R. Leach)

Paratypes: 2♂♂, Santarô-pass, Amami-Oshima (22. vii, 1954, S. Hisamatsu lgt.) (Coll. Fac. Agric., Ehime Univ.)"

背面は銅色または銅緑色で、翅鞘の白紋は僅かながら 6, 9, 11, 12 紋に現われる。

分布：奄美大島。

(未完)

## Explanation of plates

### Plate 1.

1. *P. culta culta* Waterhouse (Formosa)
2. *P. culta yaeyamana* Nomura (Yonaguni-jima)
3. *P. culta yaeyamana* Nomura (Ishigaki-jima)
4. *P. exasperata nakana* Nakane (Nakano-shima)
5. *P. exasperata suwanoseana* Nomura (Suwanose-jima)
6. *P. exasperata exasperata* (Fairmaire) (Amami-Ōshima)
7. *P. exasperata exasperata* (Fairmaire) (Tokuno-shima)
8. *P. exasperata uenoi* Nomura (Okino-erabu-shima)
9. *P. exasperata satoi* Nakane (Okinawa-Hontō)

### Plate 2.

10. *P. formosana* (Moser) (Formosa)
11. *P. formosana* (Moser) (Yonaguni-jima)
12. *P. ishigakia ishigakia* (Fairmaire) (Ishigaki-jima)
13. *P. ishigakia okinawana* Kurosawa (Okino-erabu-shima)
14. *P. ishigakia okinawana* Kurosawa (Okinawa-Hotō)
15. *P. ishigakia miyakona* Kurosawa (Miyako-jima)
16. *P. ishigakia ishigakia* (Fairmaire) (Haderuma-jima)
17. *P. ishigakia ishigakia* (Fairmaire) (Iriomote-jima)
18. *P. ishigakia yonakuniana* Nomura (Yonaguni-jima)

### Plate 3.

19. *P. lewisi lewisi* (Janson) (Okinawa-Hontō)
20. *P. lewisi leachi* Kurosawa (Amami-Ōshima)
21. *P. miyakoensis* (Niijima et Kinoshita) (Miyako-jima)
22. *P. orientalis*, subsp. (Formosa)
23. *P. orientalis*, subsp. (Kuchino-erabu-shima)
24. *P. orientalis submarmorea* Burmeister (Kyushu)
25. *P. pryeri pryeri* (Janson) (Okinawa-Hontō)
26. *P. pryeri pryeri* (Janson) (Okino-erabu-shima)
27. *P. pryeri nilidicosta* Yawata (Miyako-jima)

### Plate 4.

28. *P. pryeri tsutsuii* Nakane (Kuchino-shima)
29. *P. pryeri tsutsuii* Nakane (Nakano-shima)
30. *P. pryeri akusekiana* Nomura (Akuseki-jima)
31. *P. pryeri esakii* Nakane (Takara-jima)
32. *P. pryeri oshimana* (Nonfried) (Yokoate-jima)
33. *P. pryeri oshimana* (Nonfried) (Amami-Ōshima)
34. *P. pryeri oshimana* (Nonfried) (Kikaiga-shima)
35. *P. pryeri oshimana* (Nonfried) (Tokuno-shima)
36. *P. ishigakia kikaiana* Nakane (Kikaiga-shima)

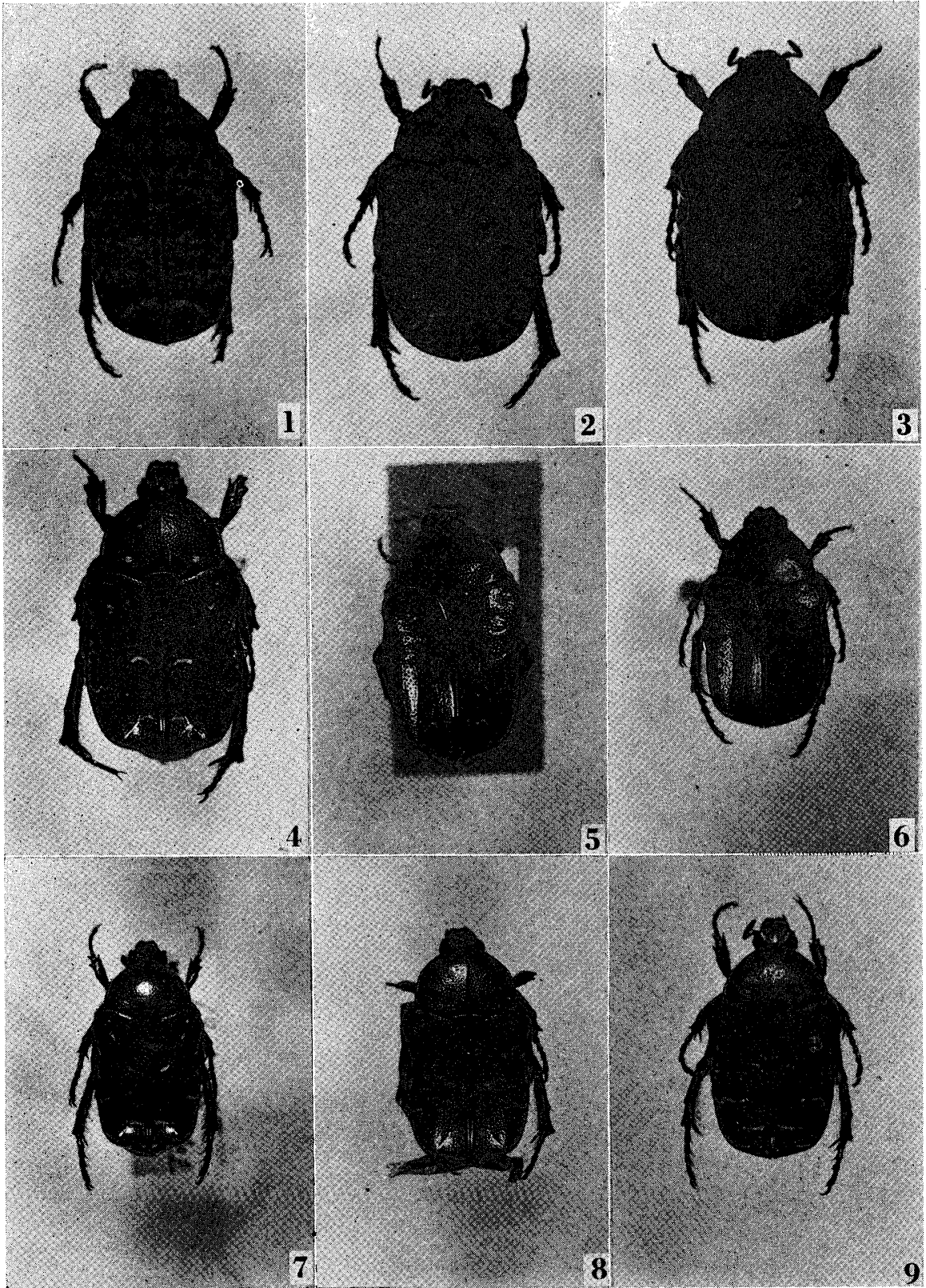


Plate 1

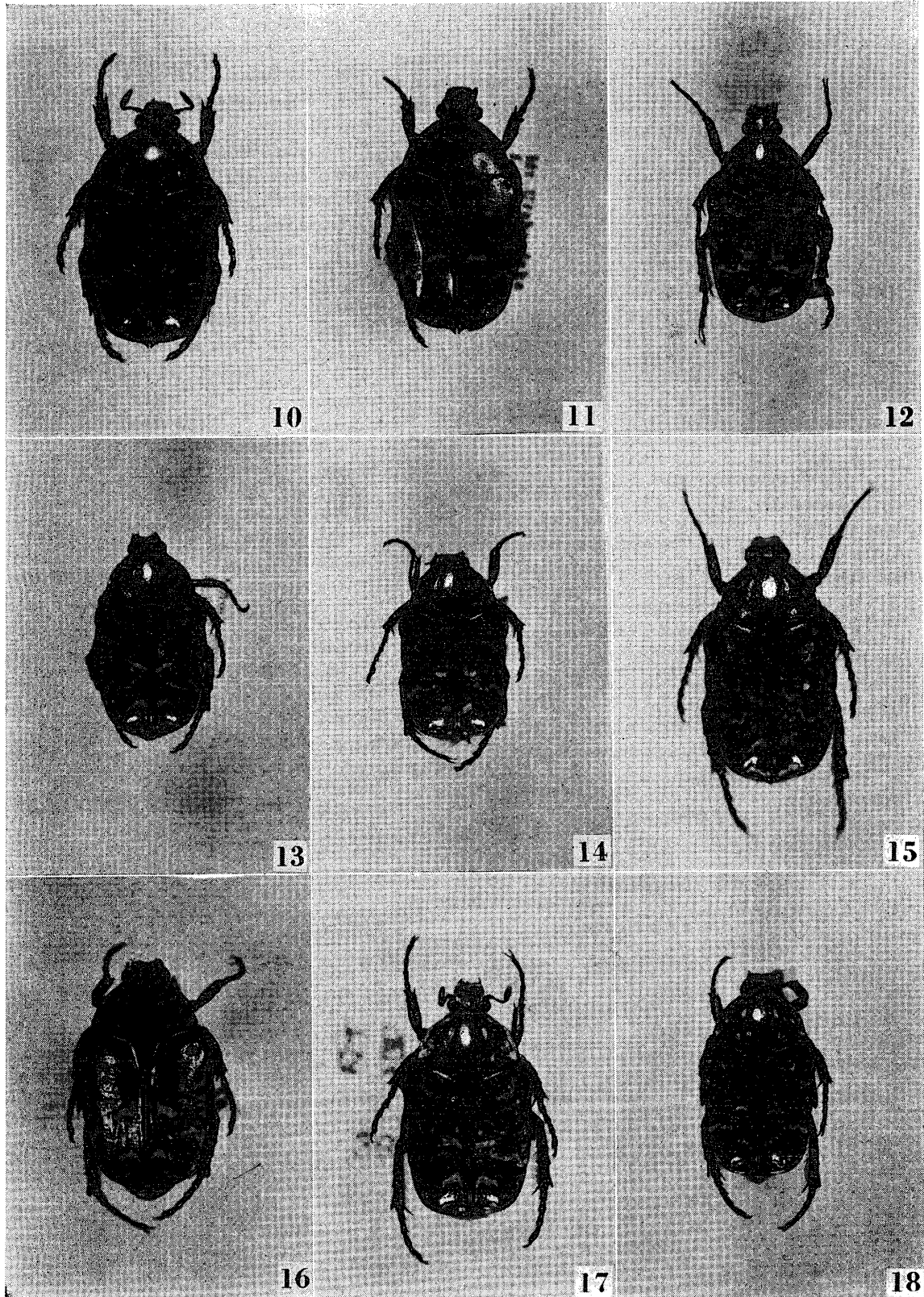


Plate 2

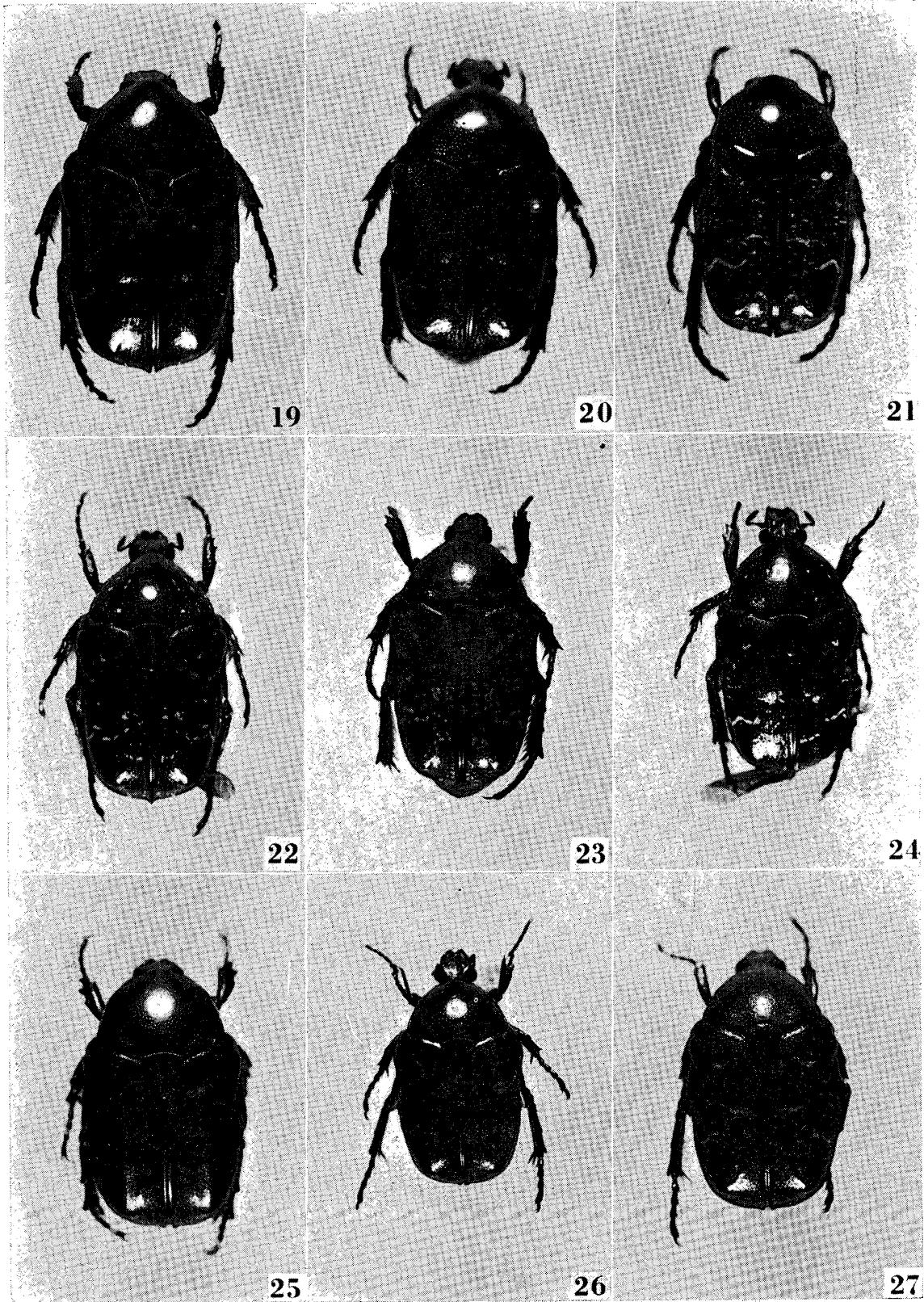


Plate 3

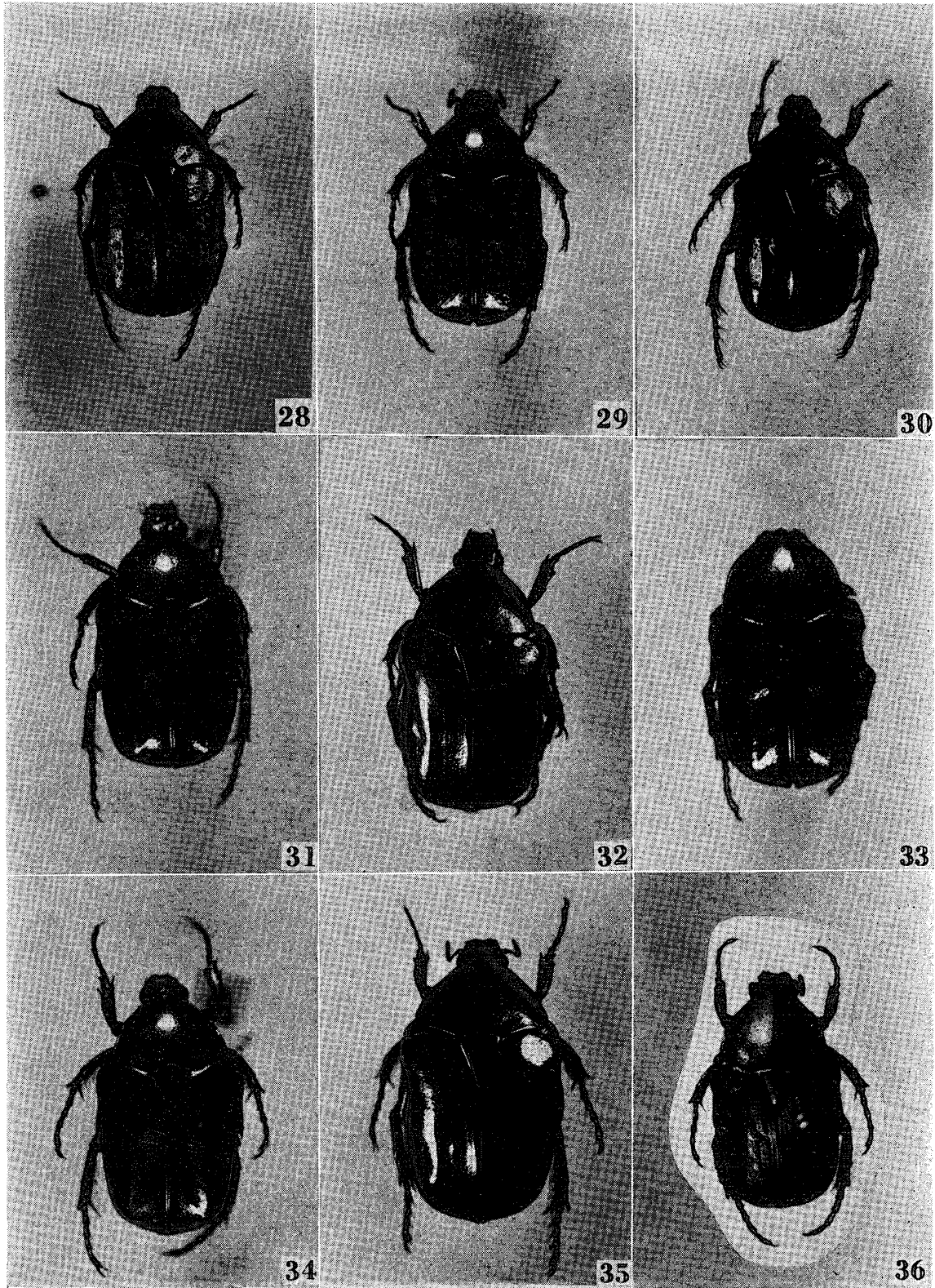


Plate 4