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The Indo-Australian weevil genus *Platytenes* Pascoe, 1870  
(Coleoptera: Curculionidae: Cryptorhynchinae)

Gregory P. Setliff  
Department of Entomology  
University of Minnesota  
St. Paul, Minnesota 55108–1037, U.S.A.

Peter A. Larson  
Department of Entomology  
University of Minnesota  
St. Paul, Minnesota 55108–1037, U.S.A.

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The Indo-Australian weevil genus *Platytenes* Pascoe, 1870  
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Gregory P. Setliff

Department of Entomology  
University of Minnesota  
St. Paul, Minnesota 55108–1037, U.S.A.  
Current address: Department of Biology  
Kutztown University  
Kutztown, Pennsylvania 19530  
setliff@kutztown.edu.

Peter A. Larson

Department of Entomology  
University of Minnesota  
St. Paul, Minnesota 55108–1037, U.S.A.

**Abstract.** The formerly monotypic weevil genus *Platytenes* Pascoe (Coleoptera: Curculionidae: Cryptorhynchinae: Cryptorhynchini: Cryptorhynchina) as treated here, includes two commonly encountered and broadly distributed species in the eastern Indo-Australian region. Label data indicate that both species are associated with semi-cultivated betel palm (*Areca catechu* L., Arecaceae) and human mediated dispersal is suggested to have influenced their present-day distribution. Herein, we provide a diagnosis for *Platytenes* and redescribe its type species, *P. varius* Pascoe. We also describe *P. occultus* Setliff and Larson, a **new species** from the Solomon Islands. New host and locality records are provided, including the first records of the genus occurring on Ambon Island, the Bismarck Archipelago, D'Entrecasteaux Islands, and many previously unreported localities on New Guinea. A full bibliography, key to species, and distribution map for the genus are also provided.

## Introduction

Pascoe erected the monotypic genus *Platytenes* in 1870 for *P. varius* Pascoe. This commonly encountered lowland species occurs through much of the eastern Indo-Australian region with published localities ranging from Sulawesi in the west to New Guinea and Australia in the east (Fig. 1). A second species of *Platytenes*, described herein, is restricted to the Solomon Islands, but is widely distributed within that archipelago (Fig. 1). The distributions of the two species in this genus are unusually broad compared to the range of other Indo-Australian cryptorhynchines (see Setliff 2007). Despite a relatively large number of specimens in collections, no ecological information has been published for these weevils.

In this contribution, we revise *Platytenes* and summarize the available taxonomic, ecological, and distributional information based on published accounts and bionomic data from preserved specimens. We suggest that humans have aided the dispersal of *Platytenes* species. We describe and illustrate diagnostic characters for the genus, redescribe *P. varius*, and describe a new species from the Solomon Islands. Also included are diagnoses, a key to species, and illustrations of variation in vestiture pattern exhibited within and between species to aid in distinguishing the two species. New host and locality records are given for *P. varius*, including the first distribution records for Ambon Island, the Bismarck Archipelago, D'Entrecasteaux Islands, and many new localities on New Guinea.

## Material and Methods

Our examination of *Platytenes* was initially based on 169 specimens sorted from the undetermined Cryptorhynchinae collection in the Bernice P. Bishop Museum (BPBM) during a visit by the first author. Additional material for this study came from the National Museum of Natural History (USNM), the Charles W. O'Brien collection (CWOB), and the first author's personal collection (GPSC).

Morphological terminology and methods follows Setliff (2008). Electron micrographs were taken with a Hitachi S3500N variable pressure SEM. Maximal width was measured across the elytral humeri and

body length was taken from the anterior margin of the elytra to the apex of the pronotum, excluding the head. For all measurements  $n = 20$  (10 males and 10 females). The largest and smallest individuals available for each species were included in the measured series.

Paratype specimens of the new species are deposited in the following collections: **ANIC**, Australian National Insect Collection, Canberra Australia; **BMNH**, The Natural History Museum, London, U.K.; **BPBM**, Bernice P. Bishop Museum, Honolulu, U.S.A.; **CASC**, California Academy of Sciences, San Francisco, U.S.A.; **CMNC**, Canadian Museum of Nature, Ottawa, Canada; **CWOB**, C. W. O'Brien collection, Green Valley, Arizona; **GPSC**, G. P. Setliff collection (presently stored at USNM); **MNHN**, Museum National d'Histoire Naturelle, Paris, France; **MSNG**, Museo Civico di Storia Naturale "Giacomo Doria," Genoa, Italy; **SMTD**, Staatliches Museum für Tierkunde, Dresden, Germany; **UMSP**, University of Minnesota Insect Collection, St. Paul, U.S.A.; and **USNM**, National Museum of Natural History, Washington D.C., U.S.A.

### *Platytenes* Pascoe

*Platytenes* Pascoe, 1870: 466

*Platystenes* Pascoe [error in Heyden 1911]

**Type species:** *Platytenes varius* Pascoe, 1870: 467 by monotypy.

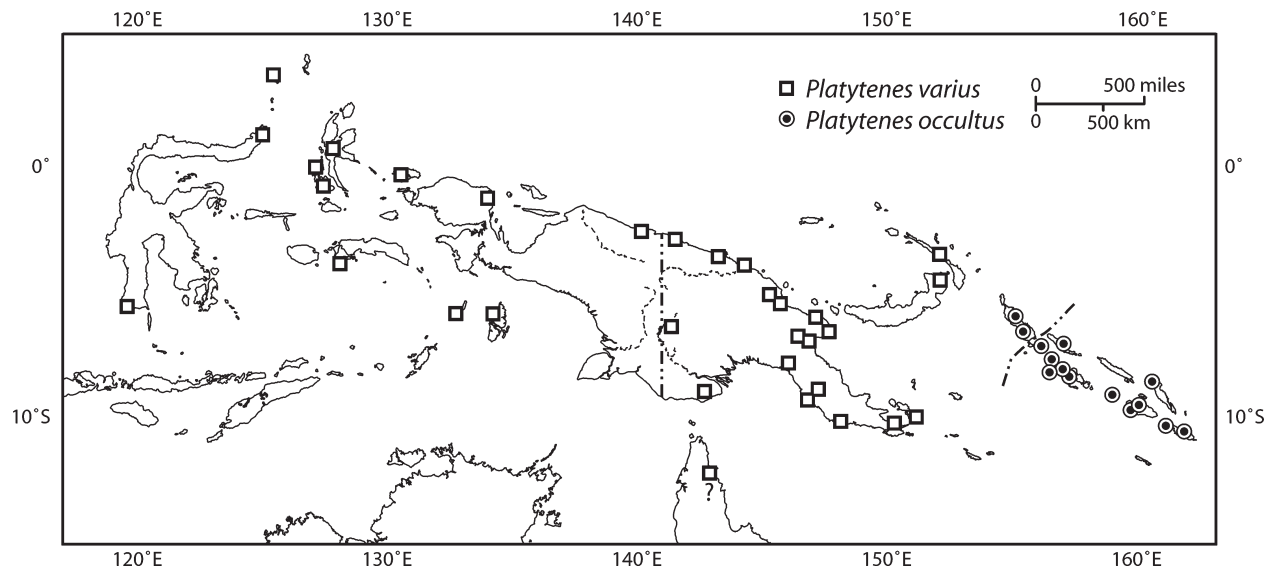
**Bibliography.** Pascoe 1870: 467 [original description], plate XVIII, figure 1 [figured]; Gemminger and Harold 1871: 2561 [catalog]; Pascoe 1885: 269 [distribution records: New Guinea]; Masters 1888: 940 [catalog]; Faust 1899: 65 [distribution records: New Guinea]; Heyden 1911: 362, 371 [distribution records: Aru and Kei Islands]; Lea 1913: 276 [redescription; distribution records: Australia; discussion of relationships]; Heller 1929: unpaginated table [distribution records: New Guinea]; Marshall 1935: 46 [distribution records—Sulawesi]; Hustache 1936: 247 [erroneously synonymized with *Chaetectorus* (= *Chaetectorus*), see discussion of taxonomy below]; Heller 1941: 217 [removed from synonymy and diagnosed from *Chaetectorus*, see discussion of taxonomy below]; Marshall 1952: 269 [removed from synonymy with *Chaetectorus*, see discussion of taxonomy below]; Voss 1958: 219 [distribution records: New Guinea]; Bigger and Schofield 1983: 30, 34, 42 [checklist; distribution records: New Guinea and the Solomon Islands; Solomon Islands record attributed to *P. varius* most likely refers to our new species]; Zimmerman 1992: 310, plate 459 figures 5 and 6 [figured]; Alonso-Zarazaga and Lyal 1999: 127 [catalog]; Setliff 2007: 109 [checklist].

**Recognition.** A most unique and diagnostic feature for *Platytenes* is their large and unusually shaped metepisternites (Fig. 8, 16). The anterodorsal margin is strongly produced dorsad from the apex to about mid-sclerite. The adjoining portion of the elytron (anapleural margin) bears a semicircular recess to accommodate the enlarged margin of the metepisternite. While this character alone is sufficient to diagnose the genus, the following characters include more readily observable features that will also aid in separating *Platytenes* from other weevil genera. The dorsum is nearly flat (Fig. 2–8) with four fasciculate tubercles near the anterior margin of the pronotal disk (Fig. 14–15). The elytral humeri are strongly produced making the elytra 1.3–1.5 times broader than the pronotum. The rostrum is very narrow, almost straight or very weakly curved, and glabrous in both sexes past the point of insertion of the antennae. The antennae are inserted in the basal one-third of the rostrum. The scape is very short, being only as long as the club, and does not reach the eye (Fig. 11). The dorsal vestiture is comprised of densely distributed, mottled black, white, and tan scales arranged in a highly variable pattern even among sympatric specimens; however the elytral declivity to the apex is entirely clothed in white to cream colored scales in all specimens we examined. Fig. 2–7 illustrate variation in dorsal vestiture among and between *Platytenes* species. Sclerolepidia are not visible and are probably absent. The hind femora also are clothed characteristically with the basal one-third bearing white to cream colored scales and the distal portion black as in Fig. 8. The venter, like the dorsum, is more or less flat. Female terminalia provide a further diagnostic, generic-level character. The apex of tergite VIII is abruptly and strongly curved ventrad so that it is orientated nearly 90° from the rest of the tergite. The apex is simple, lacking stout setae or crenulations, and is strongly bifurcate (Fig. 28–29).

**Taxonomy.** For nearly two decades, *Platytenes* was considered a junior synonym of *Chaetectorus* Schönherr due to an error in the Coleopterorum Catalogus. Hustache (1936: 247) erroneously synonymized *Platytenes* with *Chaetectorus* (misspelled *Chaetectorus* in that work), apparently due to his misinterpretation of comments made by A. M. Lea (1913: 276). However, Lea did not propose any such synonymy in his work; rather he simply suggested a distant affinity between the two genera. Heller (1941: 217) was the first to recognize and attempt to rectify Hustache's mistake. Unfortunately, Heller's correction appeared as a short statement preceding the description of *Chaetectorus cinereus* Heller, in a paper on the weevils of New Britain where *Platytenes* was not yet known to occur. Consequently, his correction was overlooked by subsequent workers. More than a decade later, Marshall (1952: 269) published a second correction in a brief note. Despite these two published corrections, we have seen specimens of *Platytenes* still arranged in *Chaetectorus* in some collections, indicating that confusion over the validity of *Platytenes* persists.

**Ecology and Biogeography.** Little is known of the habits of these relatively common weevils. The following comments are based primarily on label data from the material we examined. *Platytenes* species appear to be restricted to low to mid-elevations (0–700 m above sea level [a.s.l.]) with most specimens we examined occurring between 0–200 m a.s.l. Like most cryptorhynchines, adults of *Platytenes* species are poor flyers (Setliff, personal observation), and we presume that they have limited dispersal ability. Despite this apparent limitation, *Platytenes* species have an unusually broad distribution compared to other cryptorhynchines from the region. Label data provide one plausible explanation. Several specimens of two *Platytenes* species were collected on semi-cultivated betel palm (*Areca catechu* L., Areaceae). Although the betel palm likely originated in Southeast Asia, archaeobotanical evidence suggests that the stimulant betelnut has been chewed throughout Melanesia for 3000–5000 years (Fairbairn and Swadling 2005, Zumbroich 2007). The putative association between *Platytenes* and *A. catechu*, combined with the atypical distribution and presumed poor dispersal ability of the weevils suggests human mediated dispersal may have played a role in the present-day distribution of *Platytenes* species. To our knowledge, no specimens have been reared from betel palm; however, larvae are capable of developing in other host plants. Two adults of *P. varius* in GPSC were reared from wood of *Ficus nodosa* Teijsm. and Binn. (Moraceae) and one adult was reared from *Nauclea orientalis* (L.) L. (Rubiaceae).

**Distribution.** (Fig. 1). Moluccas (= Maluku Islands), Aru Islands, Kei Islands, Waigeo Island, New Guinea, D'Entrecasteaux Islands, Bismarck Archipelago, Australia and the Solomon Islands.



**Figure 1.** Distribution of *Platytenes* species. Squares = *Platytenes varius*; circles = *Platytenes occultus*. Localities are from the literature and material examined in the present study. The specific location for *P. varius* in northern Queensland, Australia could not be verified.

**Key to the species of *Platytenes* Pascoe**

1. Pronotum subquadrate, apical and medial pair of fasciculate prominences on anterior pronotal disk approximate, transverse lateral sulci on pronotum well developed; scutellum at least partially squamose (Solomon Islands) ..... *P. occultus* **new species**
- Pronotum transverse, apical and medial pair of fasciculate prominences on anterior pronotal disk distant, lateral sulci on pronotum weakly developed; scutellum glabrous (Indonesia, New Guinea, Bismarck Archipelago, Australia) ..... *P. varius* **Pascoe**

***Platytenes occultus* Setliff and Larson, new species**

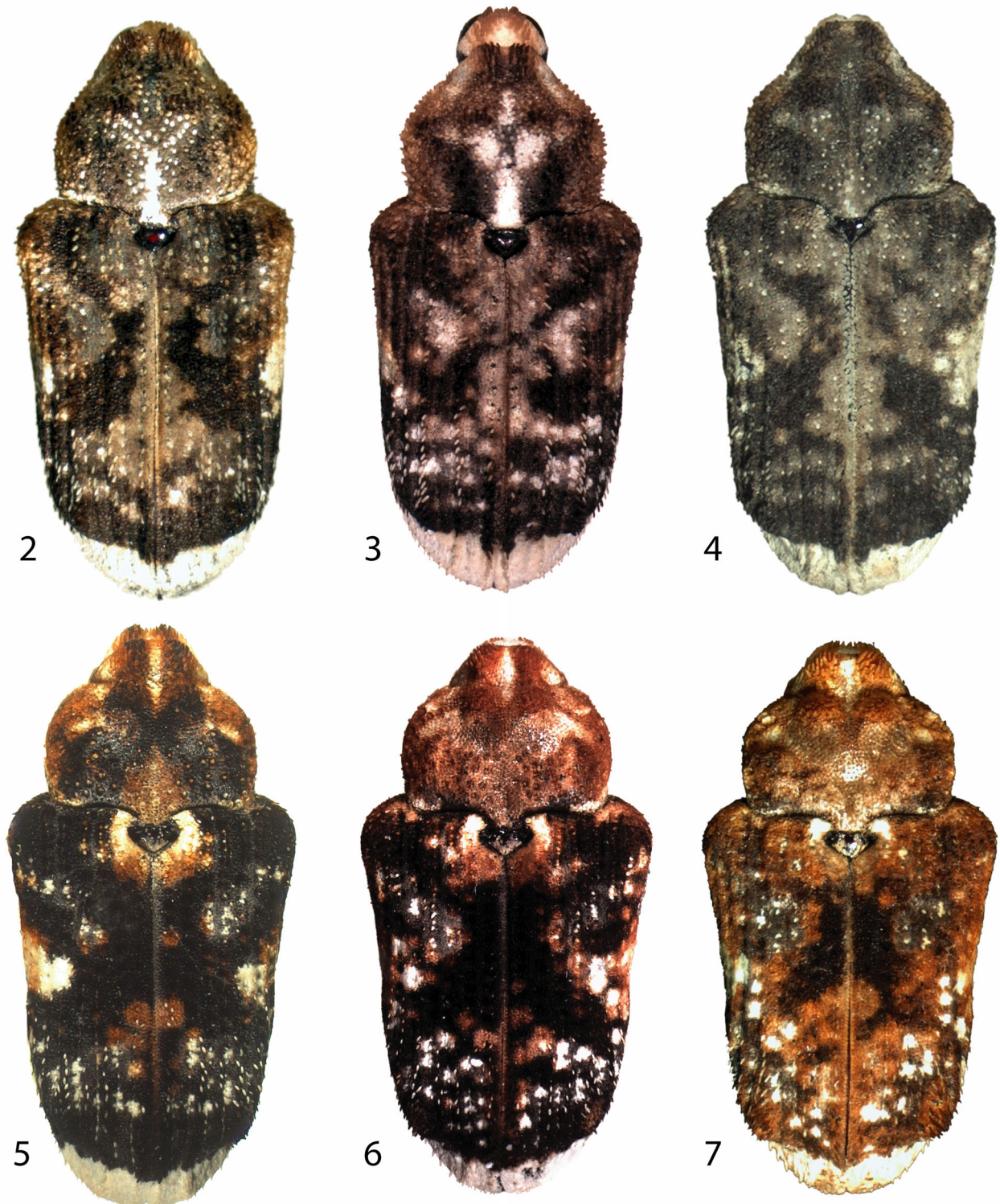
(Fig. 1, 5–10, 12, 14, 16, 18, 19–22, 25–31)

**Diagnosis.** This new species is most easily separated from its only known congener, *P. varius*, by differences in the pronotal shape and the vestiture of the pronotum, elytra, and scutellum. Unlike its congener, *P. occultus* has a broad, parallel sided, subquadrate pronotum with the four fasciculate prominences at the apex of the disk closely approximate. All four prominences are well developed and form a tight cluster surrounding a distinct medial depression. The sides of the pronotum are marked with deep transverse sulci that are situated just behind the postocular lobes. On the pronotal disk, these sulci narrowly separate the apical pair of dorsal prominences from the basal pair on either side of the medial depression. The base of the pronotum also lacks a medial, oblong, white macula that nearly always occurs in *P. varius*. The scutellum has sparse, decumbent scales on the base and lateral margins and is never entirely glabrous. The produced portions of the elytra embracing the scutellum consistently bear white patches of scales that have not been observed in *P. varius*. The last two characters can be seen with little or no magnification. Finally, the basal flange on the outer margin of the hind tibia is reduced in this species whereas it is well developed in *P. varius*.

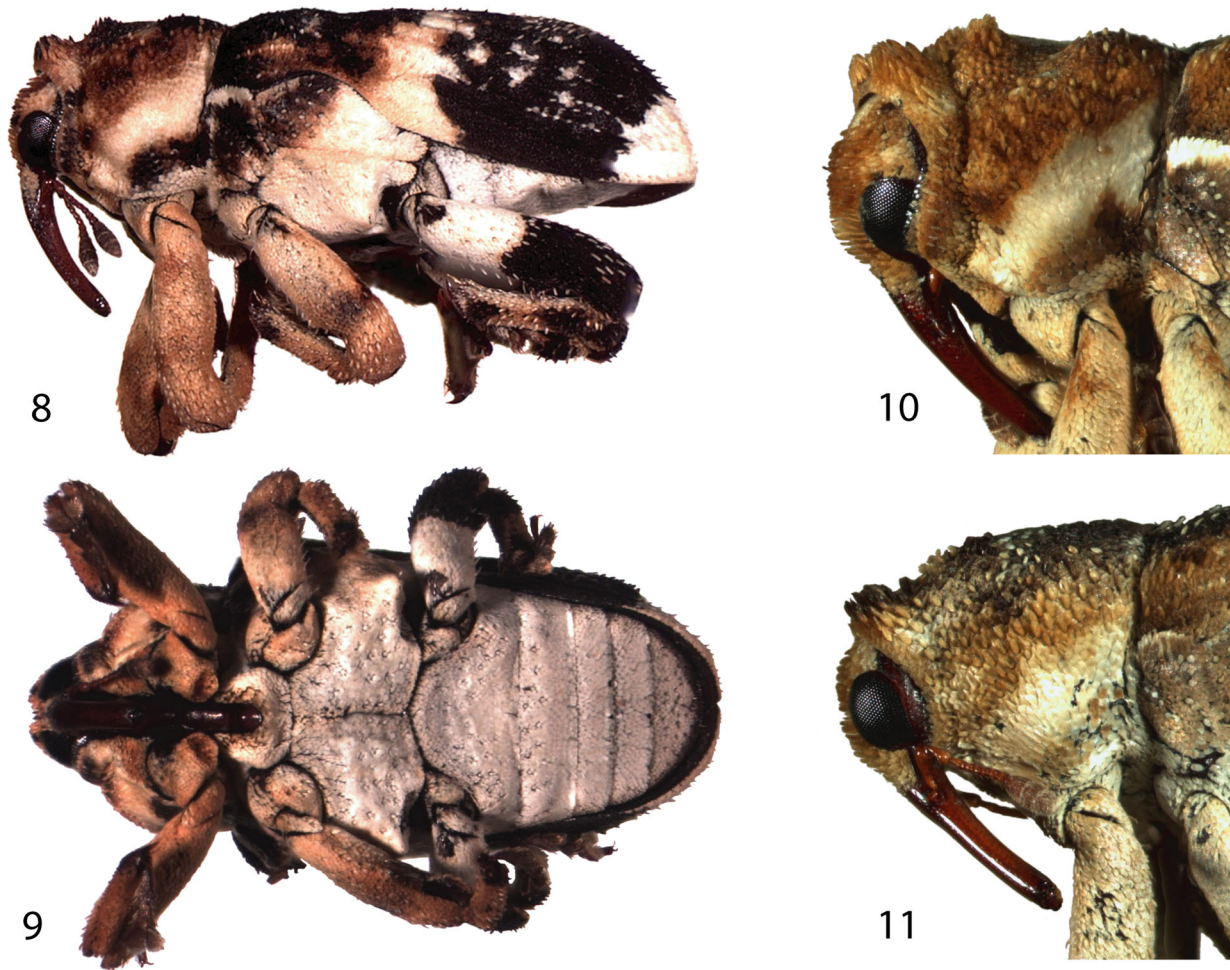
**Description.** Length 5.6–7.3 mm (mean = 6.5 mm), maximal width 2.9–3.7 mm (mean = 3.3 mm). *Habitus.* Body dorsoventrally depressed, nearly twice as long as wide; elytral humeri 1.3–1.5 (mean = 1.4) times as broad as basal width of pronotum, elytra tapering towards apex (Fig. 5–7). Integument dark brown, apex of rostrum and antenna lighter reddish-brown, entirely covered in densely distributed appressed scales interspersed with longer suberect to erect scales except on glabrous prosternal canal and distal two-thirds of rostrum; scutellum glabrous along middle with sparsely distributed, decumbent scales on sides (Fig. 12). Scales ranging from bright white and cream colored to ruddy-brown and black. Dorsal vestiture typically comprised of darker scales mottled with lighter scales, pattern of mottling highly variable among sympatric specimens, declivity to apices uniformly clothed in whitish scales (Fig. 5–7). Vestiture on ventral portion of meso- and metasternites and abdominal ventrites composed of uniformly light colored scales (Fig. 9). Hind femora with light scales on basal one-third to one-half, black scales on distal portion (Fig. 8).

*Head* visible in dorsal view. Eyes situated laterally (Fig. 10). Frons slightly narrower than basal width of rostrum, depressed between eyes, vertex more or less flat, densely set with erect scales. Rostrum narrow, weakly curved, slightly shorter than or equal to pronotal length, uniform small, shallow, lateral punctures to just before apex in males; female rostrum shinier, with very fine, nearly imperceptible lateral punctures only. Head and basal portion of rostrum densely squamate with appressed and erect scales, rostrum glabrous beyond antennal insertions in both sexes (see Fig. 10 for male). Scrobe short, margin directed ventrally towards bottom of eye, open behind. Antennae inserted subbasally on rostrum. Scape short, subequal in length to club, slightly longer than first 2 articles of funicle, not reaching eye; broadened apically. Funicular article 1 more robust and longer than article 3, article 2 twice as long as other articles; articles 3–4 each as broad as long, articles 5–7 broader than long. Club narrowly ovate.

*Thorax.* Pronotum 1.1–1.5 (mean = 1.2) times broader than long, parallel sided from base to apical one third with well developed dorsomedial prominence at apex supporting four closely approximate, fasciculate tubercles; area surrounded by tubercles deeply depressed; cervical region constricted in dorsal view, marked behind by deep transverse sulcus, delimiting postocular lobes on sides. Posterior pronotal margin sinuate, middle produced posterad (Fig. 10, 14). Prosternal canal and mesosternal receptacle deeply cavernous, glabrous; receptacle enclosed behind, posterior margin of receptacle in line with middle



**Figure 2–7.** *Platytene* species, dorsal habitus. **2)** *Platytene varius*, male (Jayapura, West Papua, Indonesia). **3)** Same, female (Ambon Island, Indonesia). **4)** Same, male (Finschhafen, Papua New Guinea). **5)** *Platytene occultus*, holotype, male (Guadalcanal, Solomon Islands). **6)** Same, paratype, female (Guadalcanal, Solomon Islands). **7)** Same, paratype, female (Ugi, Solomon Islands).



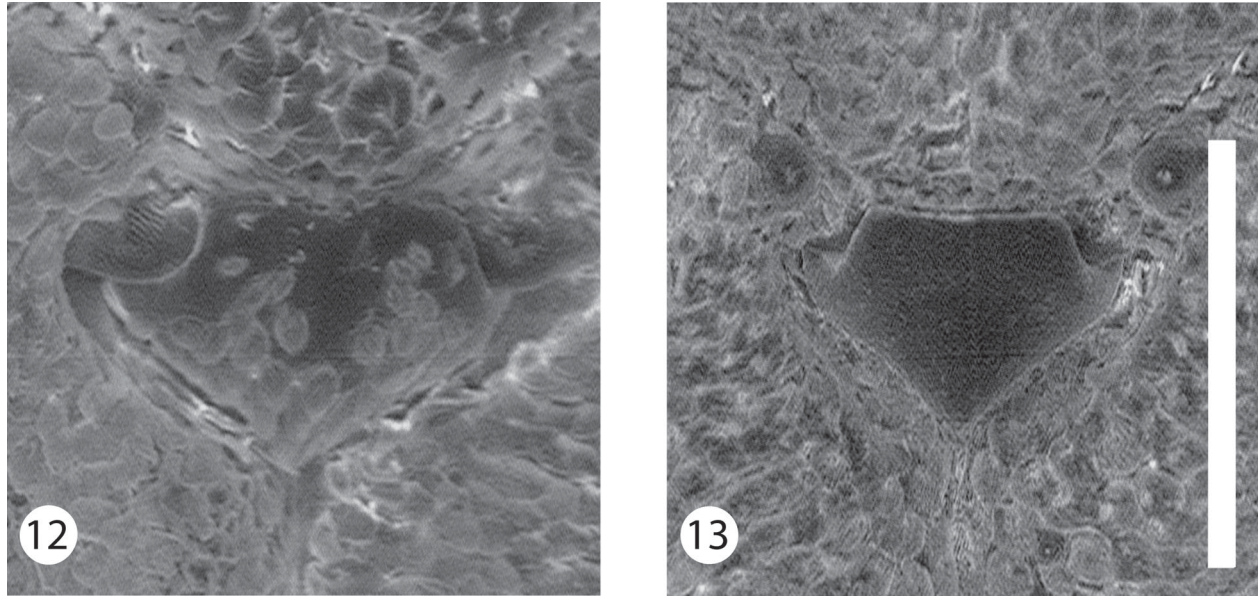
**Figure 8–11.** *Platytene* species. 8–9) *Platytene occultus*, holotype, male habitus. 8) Lateral view. 9) Ventral view. 10–11) Detail of male pronotum, lateral view. 10) *Platytene occultus*, paratype. 11) *Platytene varius*.

of mesocoxae. Pro- and mesocoxae closely approximate; distance between meso- and metacoxae much greater than diameter of mesocoxa (Fig. 9). Thoracic pleura covered in dense squamae, obscuring individual sclerites and sutures. Mes- and metepisternal margins distinct, not concealed by elytra. Metepisternite broad, less than 2.5 times long as broad, with anterodorsal margin to middle strongly produced dorsad (Fig. 8, 16). Sclerolepidia not observed. Scutellum cordate, smooth, glabrous along middle, sparse decumbent scales on sides (Fig. 12); strongly embraced by elytra laterally. Elytra 1.3–1.6 (mean = 1.4) times longer than broad. Elytral humeri produced, angulate; lateral margins tapering to elytral declivity in dorsal view (Fig. 5–7), anapleural margin with semicircular recess accommodating enlarged metepisternite (Fig. 8, 16); disk nearly flat. Pro-, meso-, and metafemora short, broad, dentate, laterally compressed. Metafemora not reaching apex of elytra. Tibiae broad, shorter than femur, strongly compressed, weakly arcuate, with well developed uncus. Hind tibiae with weak flange on outer margin near base (Fig. 18). Tarsomere 1 slightly longer than tarsomeres 2+3 combined.

**Abdomen.** Ventrites I+II connate, longer than ventrites III–V, ventrite V three times broader than long (Fig. 9).

**Male terminalia.** Spiculum gastrale with apical arms weakly produced, more or less symmetrical; apodeme subequal in length to aedeagal apodemes (Fig. 19). Tergite VIII subquadrate, slightly broader than long, posterior margin weakly truncate (Fig. 20). Aedeagal body (= median lobe of authors) one-third as long as apodemes, somewhat curved at base, more or less straight to apex; apex broadly rounded; short paired sclerites at base of body; sclerite with broad lobe nearly touching lobe of opposite sclerite at middle



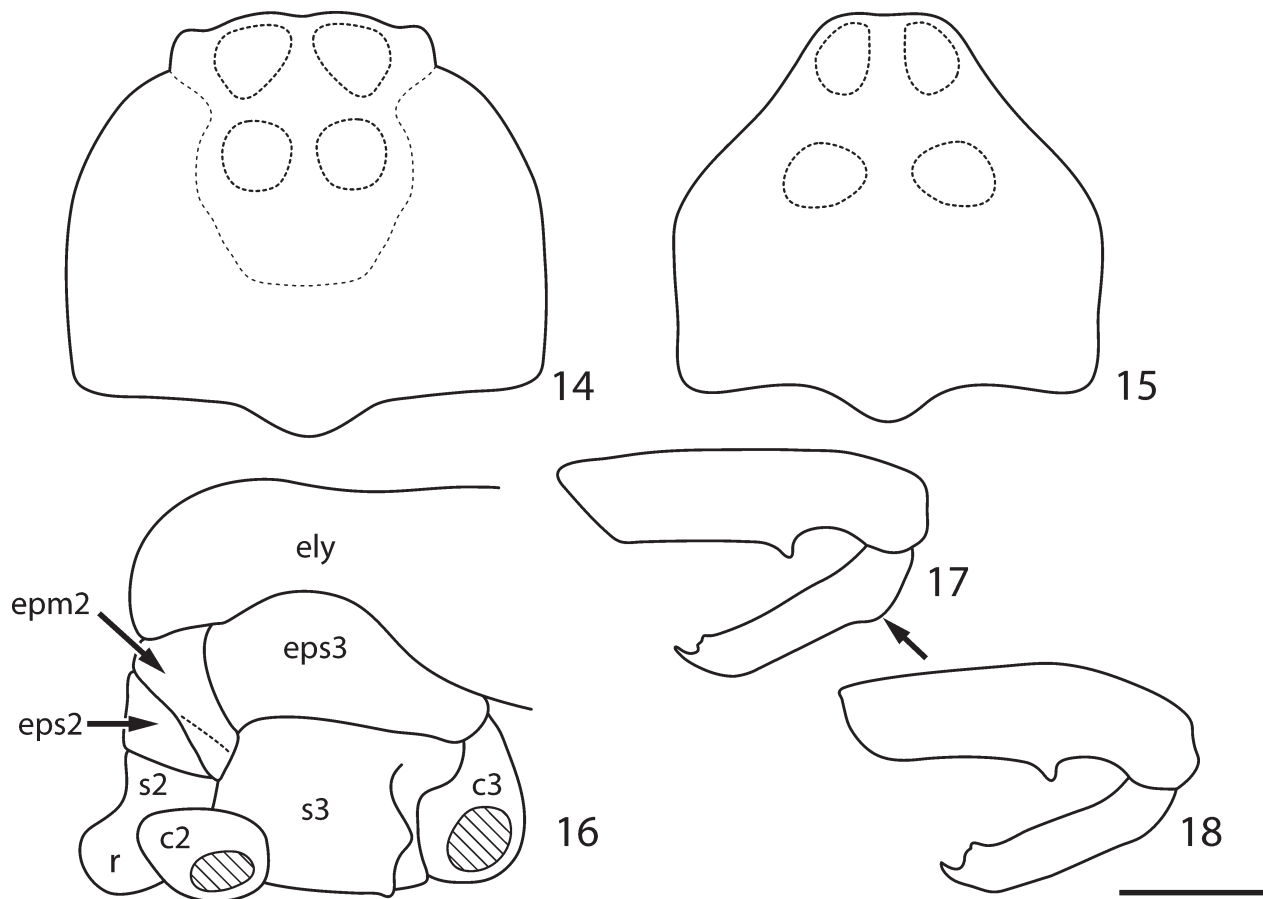


**Figure 12–13.** *Platytene* species, scutellum, dorsal view. **12)** *Platytene occultus*. **13)** *Platytene varius*.

(Fig. 21–22). Tegmen with parameroid lobes well developed, apodeme shorter than width of tegminal ring (Fig. 25–26). Tergite VII nearly twice as broad as long, posterior margin truncate to slightly emarginate, 14–17 large plectral tubercles arranged in 2 longitudinal rows on either side of midline, rows reaching posterior margin (Fig. 27).

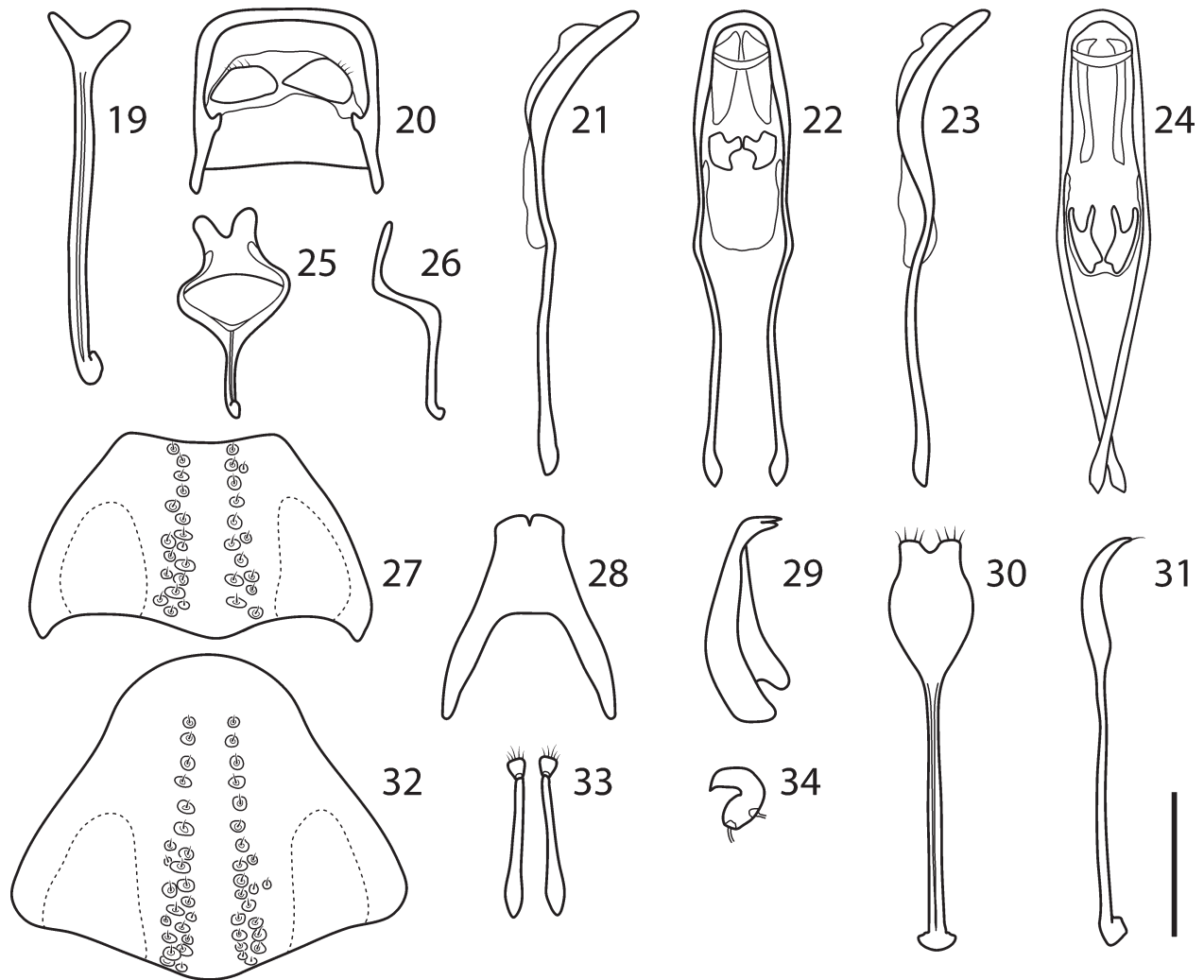
*Female terminalia.* Tergite VIII longer than broad, apex slightly broader than subapical region, strongly bent ventrad, apical margin simple, deeply bifurcate (Fig. 28–29). Sternite VIII with apical plate spatulate; plate apically curved ventrad, set with short, stout setae; plate shorter, one-third as long as apodeme (Fig. 30–31). Tergite VII broader than long, posterior margin rounded, with 20–24 large plectral tubercles arranged in 2 longitudinal rows on either side of midline, reaching posterior but not anterior margin (Fig. 32). Hemisternites broader towards base; styli short, broader towards apex, hemisternites eight times longer than styli, with apical setae distinct (Fig. 33). Spermatheca hook-shaped, apex of cornu truncate (Fig. 34).

**Material examined.** The type material comes from two collections. The holotype and 60 paratypes came from the BPBM and 5 paratypes came from the USNM. The BPBM has graciously allowed us to distribute 14 paratypes to the following collections: 2 ANIC, 2 BMNH, 1 CASC, 1 CMNC, 1 CWOB, 2 GPSC, 1 MNHN, 1 MSNG, 2 SMTD, and 1 UMSP. All paratypes that are not labeled otherwise are deposited in BPBM. **Holotype:** male: “SOLOMON IS., Guadalcanal: Poha R., 1–50m., Oct. 6, 1957/ J. L. Gressitt, Collector” (BPBM). **Paratypes: PAPUA NEW GUINEA: Bougainville Island:** 1 male, “Bougainville I. 24 VI '44, A. B. Gurney” (USNM); 1 male, “Bougainville I. 5–15.VII '44, A. B. Gurney” (USNM); 2 females, “Bougainville I. VII 15. IX '44, A. B. Gurney” (USNM); 1 male, “Bougainville, Torpanos 200m, 6km. W. Tinputz/ 22–29.II.1968/ Abid Beg Mirza, Collector, Bishop”; 1 female, “Bougainville: NE, Mutahi. 700m, 18km S.E. Tinputz/ 1–7.III.1968/ Tawi, Collector, Bishop”; 1 male, “Solomon Is., Bougainville, Kukugai Vill., 150m, X.1960/ W. W. Brandt, Collector, Bishop” (UMSP); 1 male, “Solomon Is., Bougainville, Kukugai Vill., 150m, XII.1960/ W. W. Brandt, Collector, Bishop”; **SOLOMON ISLANDS: Choiseul Island:** 1 female, “Solomon Is., Choiseul I., Malangona, 30m., 7.III.1964/ P. Shanahan, Collector, Bishop”; **Fauro Island:** 1 female, “Solomon Is., Fauro I., Toumoa, Village, 10m., 12.4.1964/ P. Shanahan, Collector, Bishop/ Malaise Trap, Bishop”; **Guadalcanal Island:** 1 female, “Solomon Is.: Guadalcanal I., Honiara, 0–100m., XII.1976/ J. L. Gressitt, Collector, Bishop Museum”; 1 female, “SOLOMON IS: Guadalcanal I, Honiara, 0–200m, ii.1987, N. L. H. Krauss, Coll., BISHOP Museum” (USNM); 1 female, “SOLOMON IS: Guadalcanal I, Honiara, 0–200m, III.1987, N. L. H. Krauss, Coll., BISHOP Museum”; 1 male, “SOLOMON IS: Guadalcanal I: Honiara, 0–100m, iii.1986, N. L. H Krauss, Bishop Museum”; 2 females, “SOLOMON



**Figure 14–18.** *Platytene* species. **14–15**) Dorsal outline of pronotum, broken lines indicate position of fasciculate prominences and raised medial area. **14)** *Platytene occultus*. **15)** *Platytene varius*. **16)** *Platytene occultus*, meso- and metapleura, lateral view, broken line indicates bent portion of mesepimeron; key: c2–c3. meso- and metacoxae, ely. left elytron, epm2. mesepimeron, eps2. mesepisternum, eps3. metepisternum, r. lateral wall of mesosternal receptacle, s2–s3. lateral portion of meso- and metasternites. **17–18)** Left hind femur and tibia, anterior (outer) view. **17)** *Platytene varius*, arrow indicates flange. **18)** *Platytene occultus*. Scale bar = 1 mm.

IS: Guadalcanal I, Honiara, 0–100m, ii.1986, N. L. H. Krauss; 1 male, “Solomon Is: Guadalcanal I: Honiara, 0–205m., X.10.1980/ palm/ J. L. Gressitt, Bishop Museum” (CMNC); 1 male, “Solomon Is: Guadalcanal I: Honiara, 0–205m., X.10.1980/ palm/ J. L. Gressitt, Bishop Museum” (MSNG); 1 female, “SOLOMON IS.: Guadalcanal: Sahuluatea, 200–400m, I.1973/ N. H. L. Krauss, Collector, Bishop” (MNHN); 1 male, 1 female, “Solomon Is., Guadalcanal, Behind Tenamba, 2–15m., 10 7 ’57/ palm/ J. L. Gressitt, Collector, Bishop Museum” (GPSC); 1 male, 1female “SOLOMON IS., Guadalcanal, Betikama R., IX. 1960/ W.W. Brandt, Collector, Bishop” (ANIC); 1 female, “SOLOMON IS., Guadalcanal, Betikama R., IX. 1960/ W.W. Brandt, Collector, Bishop”; 2 males, “SOLOMON IS., Guadalcanal, Betikama R., VIII. 1960/ W. W. Brandt, Collector, Bishop”; 1 female, “SOLOMON IS., Guadalcanal: Poha R., 1–50m., Oct.6, 1957/ J. L. Gressitt, Collector”; 1 male, “Solomon Is., Guadalcanal: Suta, 500–1200m., VI 27 1956/ J. L. Gressitt, Collector”; 2 females, “Solomon Is., Guadalcanal: Tenaru, R., 30–60m., 25.VI.’64/ J. L. Gressitt, Collector, Bishop Museum”; 1 female, “[text illegible]anga River (Mth.), Guadalcanal, Sept. 27, 1944, H. E. Milliron”; 1 male, “Tenaru River, Guadalcanal, Nov. 13, 1944, H. E. Milliron/ H. E. Milliron, Collection”; 1 male, “Wrights Creek, Guadalcanal, July 11, 1944, H. E. Milliron/ H. E. Milliron, Collection”; 1 female, “Guadalcanar I. [sic], XI 9 44 Sol. Is./ Mataninkau, R./ J. Laffoon, Coll.”; 1 female, “Kiwi Creek, Guadalcanal, July 15, 1944, H. E. Milliron/ H. E. Milliron, Collection”; 1 female, “Kiwi Creek, Guadalcanal, Dec. 2, 1944, H. E. Milliron/ H. E. Milliron, Collection”; **Kolombangara Island:** 1 female, “Solomon Is., Kolombangara, Pepele, 0–30m, 6.2.1964/ P. Shanahan, Collector, Bishop”; **Malaita Island:** 1 female,



**Figure 19–34.** *Platytene* species. **19–22, 25–27)** *Platytene occultus*, male terminalia. **19)** Spiculum gastrale, ventral view. **20)** Tergite VIII and sternite VIII, ventral view. **21)** Aedeagus (tegmen removed), lateral view. **22)** Aedeagus, dorsal view. **25)** Tegmen, ventral view. **26)** Tegmen, lateral view. **27)** Tergite VII, dorsal view. **23–24)** *Platytene varius*, aedeagus (tegmen removed). **23)** Lateral view. **24)** Dorsal view. **28–34)** Female terminalia. **28)** Tergite VIII, dorsal view. **29)** Tergite VIII, lateral view. **30)** Sternite VIII, ventral view. **31)** Sternite VIII, lateral view. **32)** Tergite VII, dorsal view. **33)** Hemisternites, dorsal view. **34)** Spermatheca. Scale bar = 0.5 mm.

“Solomon Is., Malaita: 3km N. Auki, 30m, 2.VI.1964/ J. A. Sedlacek, Malaise Trap, Bishop” (CASC); 2 males, “Solomon Is., Malaita: Kwalo, 600–700m, 29.IX.’57/ J. L. Gressitt, Collector”; 1 female, “Solomon Is., Malaita: Tangtalau-Kwalo, 200–350m., 9-30-1957/ J. L. Gressitt, Collector”; 1 male, “Solomon Is., Malaita: Tangtalau, 200m., IX 26 ’57/ palm/ 74/ J. L. Gressitt, Collector” (CASC); **Gizo Island:** 1 male, 1 female, “Solomon Is., New Georgia Group, Gizo I., 90m., 27.VI.1964/ J. & M. Sedlacek, Collectors, Bishop”; **New Georgia Island:** 2 females, “SOLOMON IS.: Guadalcanal I. [*sic*], Munda, 15-30m, 14–15.VII.1959/ J. L. Gressitt, Collector, Bishop Museum”; 1 male, “Solomon Is.: New Georgia Group, N. Georgia I. Munda, 1–30m., VII 15 1959 / ginger/ J. L. Gressitt, Collector” (BMNH); 1 female, “Solomon Is: New Georgia I: Munda, 0–150m, XI.1976/ N. H. L. Krauss, Collector, Bishop” (BMNH); **San Cristobal Islands:** 1 female, “Solomon Islands: San Cristobal, Wairahu River, 100–400m, 9–15.V.64/ J. Sedlacek, Collector, Bishop”; **Ugi Island:** 3 males, 3 females, “Pawa, Ugi, Solomon Isl., W. M. Mann” [one female with “*Platytene* n. sp., Det. by E. C. Zimmerman”]; 1 male, 1 female, “Ugi, British, Solomon Isl., W. M. Mann/ Betel Palm/ W. M. Mann, coll., 1954” (USNM); **Vella Lavella Island:** 1 female, “Vella Lavella, [illegible], P. Shanahan”; 1 male, “Vella Lavella, Kpw 10m, [text illegible] 1963, P. Shanahan”; 2 females,

“Solomon Is., Vella Lavella, Kow, 30m., 28.XI.1963/ P. Shanahan, Collector, Bishop Museum/ Malaise Trap”; 1 male, 1 female, “Solomon Is., Vella Lavella, Ulo Crater, 10m, 17.XII.1963/ P. Shanahan, Malaise Trap, Bishop Mus.” (SMTD); 2 females, “Solomon Is., Vella Lavella, Ulo Crater, 10m, VIII.1963/ Malaise Trap [one with “*Platytenes* (valid!) ? *varius* Pascoe, det. R. T. Thompson, 1993”].

**Distribution.** (Fig. 1). Widely distributed throughout the Solomon Islands (including Bougainville). The type series includes specimens from every large island and major island group in the Solomon archipelago with the exception of Santa Isabel Island. We suspect that further collections on that island will recover specimens of *P. occultus* as well.

**Hosts.** This species has been collected on betel palm (*Areca catechu* L., Areaceae) and other palms.

**Etymology.** The specific epithet, “*occultus*”, means hidden or unseen and refers to the fact that this common and widely distributed species long went unrecognized in the Solomon Islands and was misidentified repeatedly as its much better known congener, *P. varius*.

### *Platytenes varius* Pascoe

(Fig. 1–4, 10, 13, 15, 17, 23–24)

*Platytenes varius* Pascoe, 1870: 467 [description], plate XVIII figure 1 [figured]. Type localities: Macassar [Sulawesi], Gilolo [= Halamahera], Ternate Island, Aru Island, Kei Island, Waigeo Island.

**Diagnosis.** This species is separated from the new species described herein by differences in the pronotal shape and the vestiture of the pronotum, elytra, and scutellum. Unlike its congener, *P. varius* has a much narrower, transverse pronotum with the four fasciculate prominences at the apex of the disk distant from one another. The posterior pair often are reduced and the space between the four prominences usually is rather flat or slightly convex, not distinctly concave as in the new species. The lateral, transverse sulci situated just behind the postocular lobes are poorly developed. A medial, oblong or Y-shaped, patch of sparse whitish scales almost always occurs at the base of the pronotum. This patch consistently is absent in the new species. The scutellum in all specimens examined of *P. varius* is entirely glabrous. The produced portions of the elytra embracing the scutellum may bear lighter scales than the rest of the dorsal vestiture, but never distinct white patches of scales as in the new species. The last two characters can be seen with little or no magnification. Finally, the basal portion of the outer margin of the hind tibia bears a well developed flange, which is reduced in the new species.

**Redescription.** Length 5.2–6.9 mm (mean = 6.0 mm), maximal width 2.7–3.7 mm (mean = 3.1 mm). *Habitus.* Body dorsoventrally depressed, nearly twice as long as wide; elytral humeri 1.3–1.5 (mean = 1.4) times as broad as basal width of pronotum, elytra tapering towards apex (Figures 2–4). Integument dark brown, apex of rostrum and antenna lighter reddish-brown, entirely covered in densely distributed appressed scales interspersed with longer suberect to erect scales except on glabrous prosternal canal and distal two-thirds of rostrum; scutellum glabrous (Fig. 13). Scales ranging from bright white and cream colored to ruddy-brown and black. Dorsal vestiture typically comprised of darker scales mottled with lighter scales, pattern of mottling highly variable among sympatric specimens, declivity to apices uniformly clothed in whitish scales (Fig. 2–4). Vestiture on ventral portion of meso- and metasternites and abdominal ventrites possessing uniformly light colored scales (as in Fig. 9). Hind femora with light scales on basal one-third to one-half, black scales on distal portion (as in Fig. 8).

*Head* visible in dorsal view. Eyes situated laterally (Fig. 11). Frons slightly narrower than basal width of rostrum, depressed between eyes, vertex more or less flat, densely set with erect scales. Rostrum narrow, weakly curved, slightly shorter than or equal to pronotal length, uniform small, shallow, lateral punctures to just before apex in males; female rostrum shinier, with very fine, nearly imperceptible lateral punctures only. Head and basal portion of rostrum densely squamate with appressed and erect scales, rostrum glabrous beyond antennal insertions in both sexes (see Fig. 11 for male). Scrobe short, margin directed ventrally towards bottom of eye, open behind. Antennae inserted subbasally on rostrum.

Scape short, subequal in length to club, slightly longer than first 2 articles of funicle, not reaching eye; broadened apically. Funicular article 1 more robust and longer than article 3, article 2 twice as long as other articles; articles 3–4 each as broad as long, articles 5–7 broader than long. Club narrowly ovate.

*Thorax.* Pronotum 1.1–1.3 (mean = 1.2) times broader than long, transverse, with four poorly developed fasciculate tubercles at apex; area surrounded by tubercles flat; cervical region not strongly constricted in dorsal view, transverse sulcus on sides very faint. Posterior pronotal margin sinuate, middle produced posterad (Fig. 11, 15). Prosternal canal and mesosternal receptacle deeply cavernous, glabrous; receptacle enclosed behind, posterior margin of receptacle in line with middle of mesocoxae. Pro- and mesocoxae closely approximate; distance between meso- and metacoxae much greater than diameter of mesocoxa (as in Fig. 9). Thoracic pleura covered in dense squamae, obscuring individual sclerites and sutures. Mes- and metepisternal margins distinct, not concealed by elytra. Metepisternite broad, less than 2.5 times long as broad, with anterodorsal margin to middle strongly produced dorsad (as in Fig. 16). Sclerolepidia not observed. Scutellum cordate, smooth, glabrous (Fig. 13); strongly embraced by elytra laterally. Elytra 1.3–1.5 (mean = 1.4) times longer than broad. Elytral humeri produced, angulate; lateral margins tapering to elytral declivity in dorsal view (Fig. 2–4), anapleural margin with semicircular recess accommodating enlarged metepisternite (as in Fig. 16); disk nearly flat. Pro-, meso-, and metafemora short, broad, dentate, laterally compressed. Metafemora not reaching apex of elytra. Tibiae broad, shorter than femur, strongly compressed, weakly arcuate, with well developed uncus. Hind tibiae with well developed flange on outer margin near base (Fig. 17). Tarsomere 1 slightly longer than tarsomeres 2+3 combined.

*Abdomen.* Ventrites I+II connate, longer than ventrites III–V, ventrite V three times broader than long (as in Fig. 9).

*Male and female terminalia.* As in previous species except aedeagal body (= median lobe of authors) narrower, more strongly curved at base, then more or less straight to apex; apex broadly rounded; narrow paired basal sclerites situated posteriad to body, with two short arms at apex; sclerites divergent towards apex (Fig. 23–24).

**Material examined.** All specimens are deposited in BPBM unless otherwise noted. **INDONESIA: Ambon Island:** 5 males, 4 females, “Amboina, F. Muir”; 1 female, “Amboina, F. Muir/ ex. Penang Palm, in great numbers (431)”; 1 female, “Indonesia 1-50m., Ambon I., Waai, IX.1963/ A. M. R. Wegner, Collector Bishop Museum”; 1 male, “Indonesia, Ambon I., Waai, XII.1966, A. M. R. Wegner”; 1 male, “Illufi/ J. & M. Sedlacek, Collectors, Bishop”; **West Papua:** 1 female, “Hollandia, NG X 5 44, Carl Mohr”; 1 male, 1 female, “New Guinea: Hollandia. 3 1945, H. Hoogstraal/ rain [illegible]”; 1 female, “New Guinea: Neth., Eramboe, 80 km ex, Merauke, II 1 '60/ T. C. Maa, Collector”; 1 female, “New Guinea: Neth., Hollandia-Binnen, 100m., XI 1 1958/ Bush Palm/ J. L. Gressitt, Collector”; 1 female, “New Guinea: Neth., Waris, S. of, Hollandia, 450–500m, VIII 8–15 1959/ T. C. Maa, Collector, Bishop”; **PAPUA NEW GUINEA:** 1 male, 2 female, “Papua: Fly R., Kiunga, 35m, August, 1969/ J. & M. Sedlacek, Collectors, Bishop”; 6 males, 6 females, “New Guinea: Papua, Ruka, 9m., 12.8.1964/ H. Clissold, Collector, Bishop Mus.”; 3 males, 3 females, “New Guinea: SE, Western District, Ruka, 9m., 12.VIII.1964/ H. Clissold, Collector, Bishop Mus.”; 2 males, 1 female, “Papua New Guinea, Morobe: Takadu, 7 38 S 146 34 E, 1–20.IV.2000, T. Sears & binatang brigade MT” (CWOB); 1 female, “New Guinea: NE., Torricelli Mts., Siaute, sea lev., XI 9–17 1958/ W. W. Brandt, Collector, Bishop”; 1 male, “New Guinea: NE., Torricelli Mts., Wantipi Vill., XI 30–XII 8 '58/ W. W. Brandt, Collector, Bishop”; 1 male, “New Guinea (NE), Maprik, 160m., Oct.15, 1957/ Alpinia/ J. L. Gressitt, Collector”; 1 male, 4 females, “New Guinea: (NE), Bainyik, nr. Maprik, 225m, 20–21.VI.1961/ J. L. & M. Gressitt, Malaise Trap”; 1 male, “PAPUA NEW GUINEA: New Guinea: NE., E. Sepik Prov.: Angoram, Dist.: Mamber, 15m, 3–5.V.1980/ J. L. Gressitt, Collector, Bishop Museum, Acc. #1980.189”; 1 male, 1 female, “New Guinea: Papua, Kura, 9m., 12.VIII.1964, H. Clissold/ H. Clissold, Collector, Bishop Mus.”; 1 female, “Papua New Guinea, Madang Prov. Mis Vill., ca.200m. 26 NOV 2002, G. P. Setliff & A. Stewart” (GPSC); 1 female, “Papua New Guinea, Madang Prov. Ohu vill., 08.II.2003” (GPSC); 1 female, “Papua New Guinea, Madang Prov. Ohu Vill., 200m 18 NOV 2002, coll. G. P. Setliff” (GPSC); 1 male, 1 female, “Papua New Guinea, Madang Prov. Ohu Vill., exposed 08 May 2002, 200m. 145°41'E, 05°14'S / L. Cizek, B. Isua & J., Auga coll. Reared, from wood of NOD, *Ficus nodosa*” (GPSC); 1 male, “Papua New Guinea, Madang Prov. Ohu Vill., exposed 13 June 2002, 200m. 145°41'E, 05°14'S / L.

Cizek, B. Isua & J., Auga coll. Reared, from wood of SAR, *Nauclea orientalis*” (GPSC); 1 female, “Papua New Guinea, Madang Province, Ohu vill. 200m asl, September 2000/ Coll. Brus Isua, malaise trap, primary forest” (GPSC); 1 male, “Papua New Guinea., Madang Prov. Ohu Vill., 10.V.2003. 145°41'E, 05°14'S” (GPSC); 1 female, “Voitech Novonty & col., & Chris Amari lgt., malaise trap, primary forest, February 2001/ PAPUA NEW GUINEA: Madang Prov., Halopa mission, Hapurpi vill., ca. 700m a.s.l “ (GPSC); 1 female, “Lea-Zenang Road, 200m. N. Guinea, I. 14–19. 1979, J. Sedlacek” (CWOB); 1 female, 1 male, “Nadzab NG, IX 28 44, Carl Mohr” (NMNH); 1 female, “Nadzab, New Guinea, 12.44, Peters/ J. Sedlacek, Collector, Bishop Mus.”; 1 male, 1 female, “New Guinea: NE, Zenag-Lae, 200m., 15.1.1965/ J. Sedlacek, Collector, Bishop Mus.”; 1 female, “New Guinea: NE., Finisterre range, Saidor: Kiambavi, Vill.VII 22–29 '58/ W. W. Brandt, Collector”; 5 males, 1 female, “Finschhafen, NG 1944, Carl O. Mohr” (NMNH); 1 female, “Wareo” (CWOB); 1 female, “New Guinea: Papua, Aroa Estate, W. of Redscar Bay. 1 m., IX 28 1958/ J. L. Gressitt, Collector”; 7 males, 9 females, “N. Guinea: SE, Milne Bay, 14–23.2.69/ J. Sedlacek, Collector, Bishop Mus.”; 1 male, “New Guinea: SE, Cape Rodney, 4.XI.1960, 09 30–17 30/ L. & M. Gressitt Collectors, Bishop Mus.”; 1 male, “New Guinea: Papua, Oriomo R., 3m, 16.VIII.1964/ H. Clissold, Collector, Bishop Mus.”; 1 male, 2 females, “New Guinea: Papua, W. District, Oriomo Govt. Sta., 26–28.X.1960/ palm/ J.L. Gressitt, Collector, Bishop Mus.”; 1 female, “New Guinea: SE, Oriomo River, 6m, 14.II.1964/ H. C./ Light Trap, Bishop”; 1 female, “New Guinea: SE, Western District, 2.8.1964/ H. Clissold, Collector, Bishop Mus.”; **Bismarck Archipelago:** 1 male, “New Britain, Gazelle Pen., Bainings: St., Paul's 350m., Sept. 1, 1956/ J. L. Gressitt, Collector”; 1 male, “New Britain, Gazelle Pen., Bainings: St., Paul's 350m., Sept. 5, 1956/ J. L. Gressitt, Collector”; 1 male, “New Britain, Gazelle Pen., Bainings: St., Paul's 350m., Sept. 5, 1956/ J. L. Gressitt, Collector”; 1 male, 1 female, “New Britain, Gazelle Pen., Bainings: St., Paul's 350m., Sept. 7, 1955/ J. L. Gressitt, Collector”; 1 male, “New Britain, Gazelle Pen., Kerawat 60m., Aug. 28, 1955/ J. L. Gressitt, Collector”; 1 male, “New Britain, Gazelle Pen., Kerawat 60m., IX 11 '56/ J. L. Gressitt, Collector”; 1 female, “New Britain, Britain, Gazelle Pen., Kerawat 60m., Sept.3, 1955/ primary growth/ J. L. Gressitt, Collector”; 1 male, “New Ireland, Kandan, 25.XII.1958/ W. W. Brandt, Collector, Bishop”; 2 males, 6 females, “New Ireland, Kandan, 25.XII.1958/ W. W. Brandt, Collector, Bishop”; **D'Entrecasteaux Islands:** 2 females, “New Guinea: Papua, Normanby I., Wakaiuna, Sewa Bay, Dec. 1–10 1956/ W. W. Brandt, Collector”.

**Distribution.** (Fig. 1). The previously published distribution localities for *P. varius* are presented here in chronological order by date of publication. Aru Island, Macassar [Sulawesi], Halamahera, Ternate, Waigeou Island (Pascoe 1870); Fly River [Papua New Guinea], Andai (Pascoe 1885); Dilo, Hughibagu, Kelesi, Paumomu River [all Papua New Guinea] (Faust 1899); Kobroor and Terangan Islands [Aru Islands], Kei Island (Heyden 1911); North Queensland [Australia] (Lea 1913); Sangi Island [Indonesia], Bacan Island (Heller 1929); Manado [North Sulawesi] (Marshall 1935); Berlinhafen [= Aitape], Astrolabe Bay, Erima, Friederich-Wilhelmshafen [= Madang] [all Papua New Guinea] (Voss 1958). The record of *P. varius* from Kolombangara and Guadalcanal in the Solomon Islands in Bigger and Schofeld (1983) is most likely in error and probably refers to *P. occultus* new species.

Previously unrecorded localities are: INDONESIA: Ambon Island; West Papua: Hollandia [=Jayapura], Eramboe (near Merauke), Waris. PAPUA NEW GUINEA: Western Province: Kiunga, Oriomo River, Ruka; Morobe: Torricelli Mountains: Siaute, Wantipi; East Sepik Province: Maprik, Bainyik, Mamber, Kura; Madang Province: Mis, Ohu, Halopa mission, Hapurpi, Saidor; Morobe Province: Takadu, Lea-Zenang Road, Nadzab, Finschhafen, Wareo; Central Province: Aroa Estate, Cape Rodney; Milne Bay Province: Milne Bay. Bismarck Archipelago: New Britain: Gazelle Peninsula: Bainings, Kerawat; New Ireland: Kandan. D'Entrecasteaux Islands: Normanby Island: Sewa Bay, Wakaiuna.

**Hosts.** Label data indicate an association with the betel palm (*Areca catechu* L., Arecaceae). However, three reared specimens suggest that other host plants may be used for larval development. A single specimen was reared from wood of *Ficus nodosa* Teijsm. and Binn. (Moraceae) and two specimens were reared from wood of *Nauclea orientalis* (L.) L. (Rubiaceae).

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