

## Studies in the Plagithmysines, endemic Hawaiian Cerambycidae (Coleopt.)

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This paper presents the results of study of available collections of plagithmysines in Honolulu, combined with rearing data accumulated over a number of years.

This fascinating group is endemic to the Hawaiian Archipelago. It represents a rather distinct group of the tribe Clytini, but not actually a subtribe. All the species are known from the main group of the islands, except one, *nihoeae* from Nihoa Island, easternmost of the Leeward Islands of the Hawaiian Chain.

The emergence of the additional new species or subspecies described in this paper again stresses the apparent monoisular endemism of the plagithmysines. No clear cases are known of the same form occurring on more than one island. The species *indecent* Perkins, from Oahu, has a subspecies, *kainaluensis*, from Molokai. Some Oahu specimens have been identified in the past as belonging to the latter subspecies, but this is questionable. It is true that *kainaluensis* is closely related to *indecent*, but their being placed as separate species, or as subspecies, is a rather arbitrary and debatable matter.

In addition to the monoisular endemism, there is a general tendency for species of the same subgenus or species-group on the same island to be associated with different host-plants. However, there are exceptions to this, and more documentation on host-range is required. Extensive rearing will be needed to solve these questions.

A number of the new forms named are from the Island of Hawaii, and were reared by Davis. These demonstrate that extensive speciation has been proceeding on this, the youngest island. Some of the new ones are described as subspecies, suggesting that old lava flows might have divided populations and kept them isolated, or that individuals might have been blown from one area to another isolated area, with subsequent genic divergence.

The systematics of this group is intriguing, as various authorities have assigned different generic placement to a number of the species, and have differed on the question of the number of genera which may be valid. Here, only a preliminary study is presented, but in an attempt to present

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the species in a better perspective, a number of new placements are made. The 6 genera in recent use are here reduced to 3, and it is suggested that *Aeschrithmysus* and *Nesithmysus* may have to be reduced, which would place all the plagithmysines in the single genus *Plagithmysus*. In an attempt to indicate relationships between species or groups of species, a table is included in this paper which represents suggested species-group assignments. Some possible relationships between some of these species-groups are indicated by arrows in the table. These are very tentative. If these were to become accepted as phyletic lines, then presumably a number of new subgenera might have to be established. On the other hand, *Calithmysus* is probably not a tenable subgenus, as its species relate to different species-groups of *Plagithmysus* (s. str.) An alternative would be to abandon all subgeneric names, and group the species only in species-groups. The grouping of related species-groups would again suggest the need for subgenera, which might almost complete a cycle of separation and reunion. Even so, by some of these steps a more natural arrangement may emerge. At any rate, the matter cannot be resolved at this point, and much further study is needed. There is the hope that further gaps in the picture may still be filled. It may be noted that several of the species-groups proposed here are represented only by species described in this paper. Some of these are described from unique specimens, but the fact that several of these were collected in quite recent years gives encouragement that more of these, and others, may still be collected or reared.

In the preparation of this paper, Gressitt is largely responsible for the descriptions, key, systematic list and illustrations, and Davis for much of the collecting and rearing, and the host-catalog. We are indebted to J. W. Beardsley, E. J. Ford, Jr., W. Gagné, N. L. H. Krauss, L. D. Tuthill, C. M. Yoshimoto, the late R. L. Usinger, and others for collecting material reported upon here.

***Aeschrithmysus dubautianus*** Gressitt and Davis, sp. n. (Fig. 1)

♂. Reddish brown to slightly pitchy: Head reddish brown, darker along median line behind antennal insertions and on apical portion of frons; antenna castaneous brown basally and paler reddish apically; prothorax reddish brown with most of raised areas somewhat pitchy; scutellum pitchy brown; elytron reddish brown; ventral surfaces reddish brown, becoming paler on abdomen; legs reddish brown to slightly pitchy brown. Body in large part subevenly clothed with sparse subrecumbent whitish buff hairs, somewhat longer and denser on thoracic sternites and femora, sparser on central portion of pronotum and on tarsi.

*Head* much narrower than prothorax, grooved medially, rugose-punctate; gena about as deep as eye. *Antenna* barely 1/2 as long as body; segment 1 fairly smooth, swollen preapically and slightly arched; 3 shorter than 1 and barely longer than 4 or 5; following shorter; 9 and 10 nearly

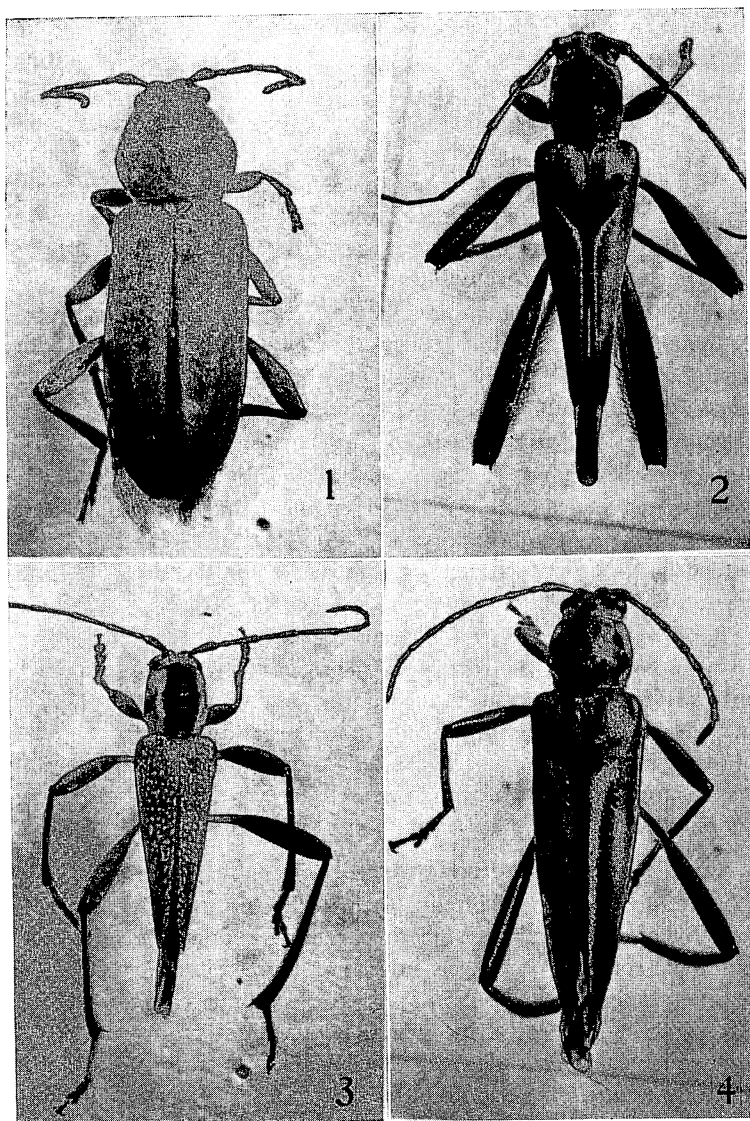


FIG. 1-4. 1, *Aeschrithmysus dubautianus* n. sp.; 2, *Plagithmysus* (s. str.) *albertisi* Sh.; 3, *P.* (s. str.) *nicotianae* n. sp.; 4, *P.* (s. str.) *cheirodendri* n. sp.

as broad as long. *Prothorax*  $1/4$  broader than long, strongly rounded at side, nearly as broad as elytra; disc somewhat uneven, broadly raised medially and with sublateral ridge very broad, somewhat uneven and more or less connected with postmedian swelling from near middle; median tubercles broad and low, hardly depressed between them, and covered with many granules and very small callosities; middle of side with a slight

callosity and most of surface closely punctured. *Scutellum* rounded behind, rather densely pubescent. *Elytron* 6 × as long as broad, subparallel, narrowed and obtusely subangulate apically; surface with 2 fairly distinct raised lines, entirely finely and closely punctured. *Ventral surfaces* moderately granulose on thorax, sparsely and finely punctured on abdomen. *Legs* fairly short and stout; hind femur somewhat flattened, arched, gradually swollen from near base, not reaching elytral apex; hind tibia gradually widened, nearly straight; hind tarsal segment 1 as long as remainder combined. Length 13.5 mm; breadth 4.2.

♀. Body largely pitchy above, partly reddish on antenna, elytral base and external margin at apical portion of elytron; pitchy to reddish on thoracic sternites and largely reddish on abdomen; legs pitchy with bases of femora and tibiae and tarsi largely reddish. Length 18 mm; breadth 5.

Paratypes: Reddish brown to largely pitchy. Length 15–18 mm; breadth 4–4.8.

Holotype ♂ (BISHOP 8026), Mt. Haleakala, 2,400 m, Maui, from *Dubautia*, C. J. Davis; allotype ♀ (BISHOP), 17-III-1964, *Dubautia*, Davis; 5 paratypes (BISHOP, Hawaii Dept. Agric., HSPA), same data as allotype.

Differs from *terryi* Perkins in having pronotum less evenly convex and more granulose instead of transversely corrugated medially and in having elytron more evenly punctured and more angulate apically. Differs from *swezeyi* Perkins in having pronotum more broadly swollen medially and more granulose instead of corrugate and more pubescent and more finely punctured, and with elytron much more evenly punctured to apex which is less tapered.

**Plagithmysus** (s. str.) **cheirodendri** Gressitt and Davis, sp. n. (Fig. 4)

♀. Reddish brown to pitchy, with dull white to golden pubescence: head pitchy above, reddish beneath; antenna reddish; prothorax pitchy black above, reddish on lower side; scutellum pitchy; elytron reddish with a pitchy stripe on inner 2/5 of posterior 4/5, narrowing posteriorly and bearing a gray-pubescent stripe which bends slightly outward at anterior end; ventral surfaces reddish with part of metepisternum somewhat pitchy and hind portions of abdominal sternites pitchy; legs reddish. Body partly pubescent above, with a small yellow patch before eye, another just behind it, some vaguer yellowish pubescence mixed with white on frons, a few oblique hairs on antenna, 4 conspicuous yellow spots on pronotum and a less distinct lateral stripe of yellow, and the fairly wide gray stripe on elytron; ventral surfaces moderately clothed with long suberect whitish hairs and some yellow pubescence on apex of metepisternum and narrowly along sides of abdominal segments; legs with short oblique pale hairs on hind femur, oblique dark hairs on tibia and longer white hairs on tarsus.

*Head* granulose to asperate above, densely punctured on most of frons

and gena, which is as deep as eye. *Antenna*  $3/5$  as long as body; segment 1 thickest well before apex; 2 only slightly thickened,  $1/3$  as long as 1; 3 shorter than 1; 4 longer than 3 but shorter than 1; 6 as long as 5, much longer than 7; 7-10 decreasing gradually in length; 11 as long as 7. *Prothorax*  $1/8$  broader than long, very strongly raised medially near anterior margin and postmedially with some irregular callosities; a strongly obliquely carinate tubercle behind middle of side of disc and a much smaller one obliquely anterior to it; surface closely punctured, but impunctate on posterior declivities of postmedian and lateral tubercles and finely punctured at side. *Scutellum* rounded-truncate apically. *Elytron*  $6 \times$  as long as broad, subevenly narrowed, with apex obliquely dehiscent and subacute; surface closely rugose-punctate. *Ventral surfaces* smooth, finely and closely punctured on thorax, remotely punctured on abdomen. *Legs* moderately long; hind femur just reaching elytral apex, not very stout; hind tibia strongly flattened, moderately arched; hind tarsal segment 1 moderately compressed, as long as remainder combined. Length 16 mm; breadth 4.2.

Holotype ♀ (BISHOP 8027), Paliku, Haleakala crater, Maui, 2000 m, VIII-1958, on olapa, *Cheirodendron gaudichaudii* (de Candolle) Seemann, McMahon.

Differs from other known species in the very strong posterior lateral pronotal tubercle, and the 4 yellow spots of pronotum; the elytral stripe is broader than with most of the large species of *Plagithmysus*. Differs from *perkinsi* Sharp additionally in having elytral stripe gray instead of yellow and more suddenly curved outward anteriorly.

***Plagithmysus*** (s. str.) ***koaiae*** Gressitt and Davis, sp. n. (Fig. 5)

♂. Red to ochraceous with markings of white pubescence: Head bright brownish red, paler on labrum and clypeal area, with fine erect pale hairs, and some more distinct white pubescence on each side of frons and a little on gena, where erect hairs are longer and denser; antenna red, paler and more brownish distally, with minute adpressed reddish hairs and scattered suberect brownish hairs; prothorax darker reddish, pitchy on carinae of pronotal ridge, clothed with a slender white stripe on each side of ridge and another less complete one along middle of side; scutellum reddish brown, narrowly bordered with white pubescence at sides; elytron brick red basally, ochraceous on remainder with fairly isolated spots of dense white pubescence forming a longitudinal stripe along suture from end of basal quarter, the stripe expanding to several spots wide just behind basal quarter and reaching a group of small less distinct spots on side behind humerus; ventral surfaces red on thorax, largely pitchy black on central portion of abdomen, densely clothed with white pubescence on mesepisternum and apex of metepisternum, and a stripe of the same along side of abdomen near lateral margin of sternites; remainder of ventral surfaces moderately clothed with suberect silvery hairs on thorax and a few shorter golden hairs on last abdominal sternite; legs red with hind tarsus

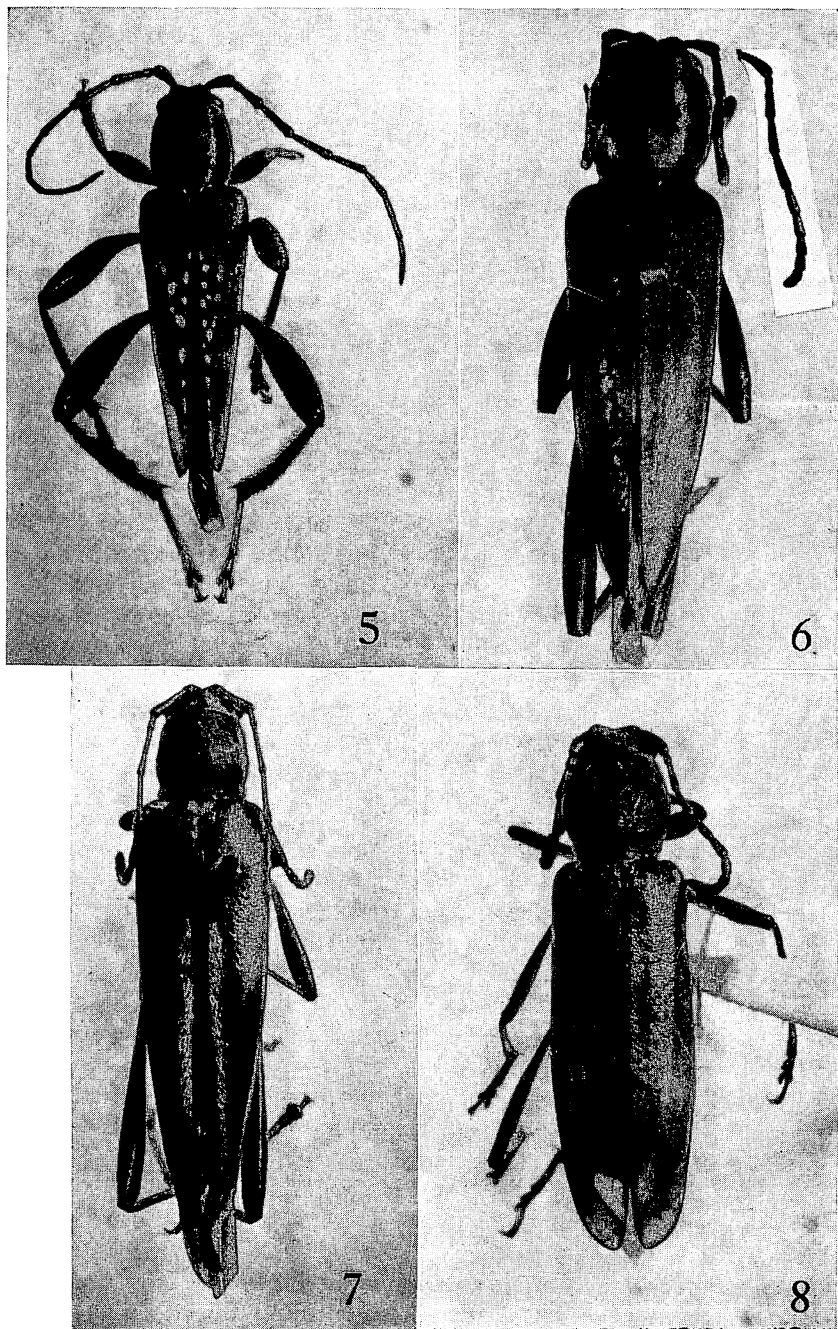


FIG. 5-8. 5, *Plagithmysus* (s. str.) *koaiae* n. sp.; 6, *P.* (s. str.) *kraussi* n. sp.; 7, *P.* (*Neoclytarus*) *usingeri* n. sp.; 8, *P.* (*Neoclytarus*) *yoshimotoi* n. sp.

paler; moderately clothed with pale suberect hairs on undersides of femora and oblique pitchy brown hairs on tibiae and tarsi, except for long white hairs on hind tarsus.

*Head* distinctly narrower than prothorax, finely granulose above, finely punctured on frons with a narrow median smooth line; gena with much larger punctures, deeper than eye; eye nearly circular except for small emargination. *Antenna* 5/6 as long as body; segment 1 gradually thickened to near apex, sparsely punctured; 2 less than 1/2 as long as 1, gradually thickened to near apex; 3 as long as 1, more slender; 3-5 decreasing very slightly in length; 6 distinctly shorter; 7 still shorter, 7-10 decreasing in length; 11 about as long as 7. *Prothorax* very slightly longer than broad, about as broad at apex as at base, subevenly convex at side; disc strongly raised medially near anterior margin and behind middle, anterior tubercle with a transverse ridge at top nearly as far forward as anterior margin, posterior swelling with 2 well separated transverse arcuate ridges; remainder of disc finely and closely punctured. *Scutellum* trapeziform, minutely punctured. *Elytron* 5 × as long as broad, evenly narrowed from just behind humerus to just before apex, rounded-dehiscent at suture and strongly oblique to obtuse apical angle which is almost in line with external margin; disc closely subrugose-punctate on basal 1/4, then more sparsely punctured and very smooth and sparsely punctured behind middle, the punctures becoming smaller and sparser posteriorly. *Ventral surfaces* finely and closely punctured at thorax, smoother on abdomen and largely impunctate on median glabrous portion. *Legs* stout; hind femur subevenly arched, gradually thickened to near apex, finely asperate-granulose; hind tibia strongly flattened, very feebly arched, feebly asperate-punctate; hind tarsus nearly 1/2 as long as hind tibia, segment 1 slightly longer than remainder combined. Length 10 mm to apex of elytron; breadth 2.6.

♀. Prothorax with white stripes more distinct on each side of median raised areas and less distinct at side; antenna and venter paler reddish ochraceous; abdomen ochraceous. Length 9.6 mm; breadth 2.6.

Paratypes: White spots on elytron varying considerably in number, sometimes partly fused into short longitudinal strips; rarely prothoracic stripes almost completely lacking. Length 7.5-10.2 mm; breadth 1.8-2.6.

Holotype ♂ (BISHOP 8028), Kawaihae Uka, 1050 m, Hawaii, 9-II-1959, reared from *Acacia koaia*, C. J. Davis; allotype, ♀ (BISHOP), same data; 12 paratypes (BISHOP, DAVIS coll., BMNH, USNM, CAS), same data; 1 paratype (U. HAWAII), Volcano, Hawaii, 27-II-1964, on shrub, D. Segawa.

Differs from *elegans* Sharp in having pronotum much less swollen medially, and with a pair of narrow white stripes instead of dense ochreous and black pubescence, and with elytron much smoother beyond basal third and with white spots lacking on basal quarter and larger and less confluent on remainder.

**Plagithmysus** (s. str.) **nicotianae** Gressitt and Davis, sp. n. (Fig. 3)

♂. Reddish brown, in part paler or darker: Head reddish, brownish pitchy above; antenna reddish brown, gradually slightly paler distally; prothorax pitchy above, reddish at side and below; scutellum dark reddish brown; elytron bright reddish brown, slightly paler apically; ventral surfaces bright to dark reddish brown; legs reddish brown with bases of femora testaceous and tarsi pale reddish brown. Body extensively clothed with yellow to buff or blackish pubescence: Head moderately clothed, with median line and sides of frons glabrous and with small glabrous spots on gena, with occiput sparsely yellowish pubescent; pronotum with broad median dark stripe with short black pubescence bordered on each side with a broad stripe of dense ochreous pubescence which is partly glabrous below middle portion of sublateral ridge; most of side glabrous and lower surface with pale yellowish pubescence; scutellum nearly glabrous; elytron with many small spots of yellow pubescence, many of them in form of very short lines in different directions, partly much smaller posteriorly and scarcer or lacking behind humerus and behind middle of side; ventral surfaces sparingly clothed with very pale yellow, with denser and more yellowish pubescence along middle of mesosternum, and on hind part of mesepimeron and apical third of metepisternum, with a lateral stripe on abdomen; legs rather thinly clothed with short oblique hairs, slightly longer on petioles of mid and hind femora, oblique and reddish on hind tibia, pale yellow and only moderately long on hind tarsus.

*Head* somewhat narrower than prothorax, rugose-punctate above, finely punctured on frons and a little more closely so on gena, which is slightly deeper than eye. *Antenna* nearly as long as body; segment 1 thickest some distance from apex and distinctly punctured; 2 more than  $2 \times$  as long as broad; 3 about as long as 1, slightly shorter than 4 or 5 but longer than 6; 6-10 decreasing in length; 11 longer than 8 and all of these fairly slender. *Prothorax* a little longer than broad, parallel-sided, broadly swollen above with anterior and posterior tubercles very broad, and very slightly concave between them, crossed by several partial carinae or rows of granules; sublateral ridge low except near posterior end which forms a ridge behind middle portion which is glabrous at side, central portion of glabrous side finely punctured to impunctate. *Scutellum* rounded behind. *Elytron*  $4.5 \times$  as long as broad, strongly and subevenly narrowed from behind humerus to apex; suture rounded-dehiscent to apex which is not quite acute; disc distinctly and somewhat closely punctured, much more finely so on apical  $1/4$ . *Ventral surfaces* in large part finely punctured, but very sparsely so to impunctate on central portion of abdomen; abdomen very small, reaching slightly more than half way from hind margin of coxa to apex of elytron. *Legs* fairly long and moderately stout; hind femur distinctly arched, swollen after basal  $1/3$ , extending  $2/5$  its length beyond elytral apex; hind tibia distinctly flattened, subparallel-sided, very weakly sinuate; hind tarsal



segment 1 as long as remainder combined. Length 12.8 mm; breadth 2.6.

♀. Pubescence on upper side of prothorax paler and more sulphury yellow; spots on elytron much paler yellow, partly indistinct behind base and at side just before apex, but covering most of rest of surface and occupying almost as much spaces between spots; pronotum with median portion very broadly swollen but lacking distinct carinae; ventral surfaces with touches of dense pubescence somewhat larger and brighter yellow; abdomen extending beyond elytral apex; hind femur very slightly thickened to nearly middle and then more strongly thickened. Length 13.7 mm; breadth 3.45.

Paratype: Length 10 mm; breadth 2.45. Pronotum with several fairly well developed carinae.

Holotype ♂ (BISHOP 8029), Auwahi, 900 m, Maui, VII-1966, from *Nicotiana*, C. J. Davis; allotype ♀ (BISHOP) and paratype ♂ (Hawaii Dept. Agric.), reared 18-20-II-1969, from *Nicotiana glauca*, Kekanui, Maui, near Auwahi, 300 m, (M-68-2), collected 19-XI-1968, Davis.

Differs from *newelli* Sharp in having pronotum much less strongly, and more evenly, swollen medially and with sublateral ridge less prominent, and in having elytral spots less rounded and less well-defined. Differs from *elegans* Sharp in having pronotum less raised medially, less pubescent at side, elytron with more numerous and more isolated pubescent patches, hind femur with longer petiole and hind tibiae narrower and less arched.

**Plagithmysus** (s. str.) **kraussi** Gressitt and Davis, sp. n. (Fig. 6)

♀. Fairly stout, strongly narrowed posteriorly. Reddish brown to pitchy black: Head pale reddish brown, somewhat darker on postocciput and on part of frons; antenna reddish brown, slightly tinged with darker, particularly on last 4 segments; prothorax blackish pitchy above, reddish on anterior margin and on middle and lower part of side; scutellum ochraceous; elytron reddish ochraceous; ventral surfaces and legs pale reddish ochraceous, slightly pitchy beyond middle of hind tibia, paler ochraceous on tarsi and apex of hind tibia. Body very sparingly pubescent: Pronotum with a thin, narrow, white stripe of pubescence on each side of broad, swollen, median area; mesonotum with a slight patch of white pubescence just anterior to each basal angle of scutellum; elytron with a very incomplete white subsutural stripe from middle to some distance before apex, consisting of 2 more or less parallel rows of small flecks of white pubescence, a very feeble spot anterior to this at end of basal 1/4 and close to suture, remainder clothed with minute reddish hairs; ventral surfaces with a little white pubescence on mesopleuron, apex of metasternum and sides of abdominal segments 1-2, with some sparse golden pubescence on metasternum and abdominal segments 1-4, with more minute golden hairs on remainder; legs with fairly short subrecumbent to slightly oblique reddish golden hairs, more reddish on femora and more golden on tarsi, those on hind tarsus not very long.

*Head* considerably narrower than prothorax, finely punctured, very densely so on occiput and frons, more sparsely so on gena, which is as deep as eye. *Antenna*  $1/2$  as long as body; segment 1 fairly long, gradually thickening to slightly before apex; 2 slightly longer than broad; 3 nearly as long as 1, slightly longer than 4; 5 as long as 4; 5-8 decreasing considerably in length; 8-11 subequal, somewhat stouter than preceding. *Prothorax* slightly broader than long, broadly rounded at side, weakly convex in central portion of side; disc very broadly and not very strongly swollen along median portion, with anterior and posterior tubercles connected, with only a slight depression between, and without transverse carinae, but with some arcuate bands of minute granules; remainder of surface fairly even, minutely reticulate-punctate, except for a slightly raised oblique ridge at posterior end of nearly obsolete sublateral ridge, and a very small slightly raised smooth callosity at middle of side and another closer to anterior margin than to former. *Scutellum* broadly rounded behind. *Elytron* just over  $5 \times$  as long as broad and about  $3 \times$  as long as prothorax, gradually narrowed in basal  $2/3$ , then more strongly narrowed to near apex which is again more strongly narrowed and subacute; disc closely rugulose-punctate throughout, a little more finely so posteriorly, and with 2 weakly raised ridges. *Ventral surfaces* minutely granulose on thorax and finely punctured at side of abdomen but largely impunctate or very weakly and sparsely punctate medially. *Legs* fairly stout; hind femur gradually thickened to well before apex from end of basal  $1/4$ ; hind tibia somewhat flattened, barely  $1/2$  as wide as femur, about as wide at middle as near apex; hind tarsus  $2/3$  as long as tibia, segment 1 slightly longer than remainder combined. Length 11.2 mm; breadth 3.

Holotype ♀ (BISHOP 8031), Kawaihae, 500 m, Island of Hawaii, 1950, N. L. H. Krauss.

Differs from *nihoe* Perkins in being stouter, with prothorax broader, more broadly swollen and even above, and more distinctly striped, and elytron in general with finer and less pale pubescence. This species is not a typical *Plagithmysus* s. str. It has the broader prothorax of many *Neoclytarlus*, though it has the strongly narrowed elytra and gradually thickened hind femur of the former.

**Plagithmysus** (s. str.) **koae** Gressitt and Davis, sp. n. (Fig. 9)

♂. Pitchy black to pale yellowish testaceous, with rather little pubescence above: head pitchy reddish brown, much paler near mouth-parts; antenna reddish, paler distally; prothorax pitchy black above, more reddish at side; scutellum reddish; elytron yellowish testaceous with a large pitchy reddish strip occupying nearly  $1/2$  of surface, along suture on inner  $2/3$  and posterior  $2/3$ , extending acutely forward on disc and obliquely backward to suture anteriorly, nearly parallel-sided and thus covering greater fraction of elytral width posteriorly; ventral surfaces reddish on

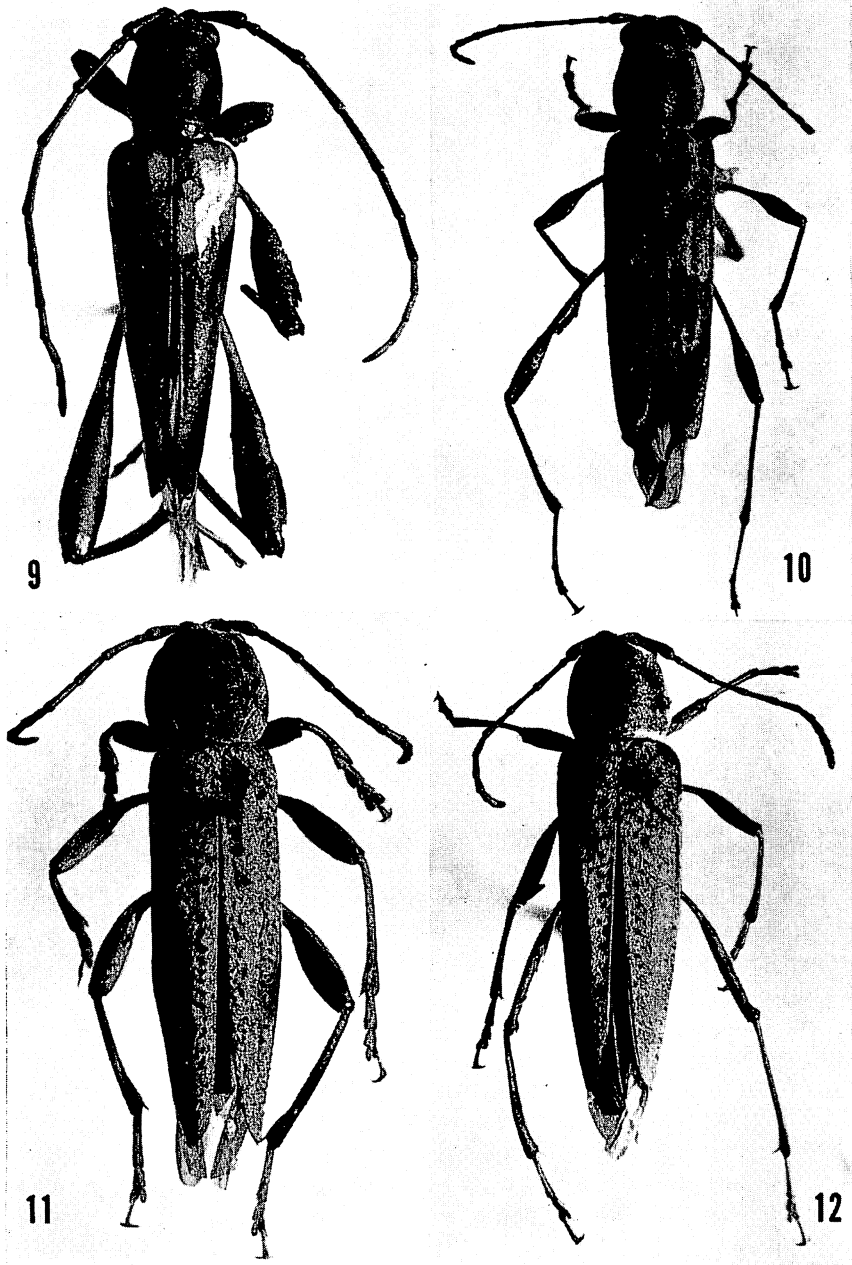


FIG. 9-12. 9, *Plagithmysus* (s. str.) *koae* n. sp.; 10, *P. (Neoclytus) filipes sophorae* n. ssp.; 11, *P. (N.) looki ukae* n. ssp.; 12, *P. (N.) looki keanakolui* n. ssp.

mesothorax and metepisternum, paler on metasternum, somewhat pitchy on basal  $1/2$  of abdomen and paler apically. Body sparsely pubescent above, with indistinct minute whitish hairs, but with some oblique hairs on antenna and a vague stripe of white pubescence on elytron in apical  $1/5$  along suture; front of head and median portions of ventrites with flying white hairs, some distinct white pubescence along hind margin of metathorax; hind femur with incomplete apical and preapical rings of white pubescence besides oblique pale hairs; hind tibia with relatively sparse oblique reddish hairs; hind tarsus with similar hairs, only a few of them whitish.

*Head* rugose-punctate and grooved medially above, coarsely punctured and narrowly smooth medially on frons, coarsely and more sparsely punctured on gena, which is as deep as eye. *Antenna* nearly as long as body; segment 1 swollen preapically, finely and sparsely punctured; 2 gradually thickened to apex,  $1/3$  as long as 1; 3 longer than 1, slightly shorter than 4; 5 longer than 4; 6 shorter than 4; 6–10 gradually decreasing in length; 11 nearly as long as 7. *Prothorax* barely longer than broad, medially strongly raised near anterior border, with a short transverse carina and some lesser incomplete carinae; ridge nearly obsolete at middle, then raised again and broader, posteriorly, with 2 fairly long sinuate carinae; each side of disc with a longitudinal-subarcuate ridge; surface finely and closely punctured, impunctate at center of side. *Scutellum* rounded behind, micropunctulate. *Elytron* not quite  $5 \times$  as long as broad, subevenly narrowed posteriorly, nearly  $1/2$  as wide just before apex as at base; apex obliquely and subsinuately truncate internally, subrounded at tip; surface finely and densely punctured throughout, subrugulose basally. *Ventral surfaces* shiny, finely punctured—densely so on anterior portion of metepisternum and very sparsely so on most of abdomen. *Legs* fairly long; hind femur extending beyond elytral apex by  $1/4$  its length, clavate in distal  $1/2$ , closely and minutely granulose on club; hind tibia moderately flattened, slightly curved near apex; hind tarsal segment 1 moderately compressed, slightly longer than remainder combined. Length 12.8 mm; breadth 3.6.

♀. Elytron more extensively blackish, with only basal  $1/4$  of disc pale; some thin whitish pubescence on inner part of central and postmedian portions; hind femur rather feebly clavate in distal  $2/5$ . Length 11.6 mm; breadth 2.7.

*Paratypes*: Varying in coloration from that of allotype to more extensively pale than in holotype; 1 ♂ agreeing with holotype; 1 ♀ with more extensive thin white pubescence on elytron.

*Holotype* ♂ (BISHOP 8033), Kipahulu Valley, 450 m, Maui, 21-VIII-1929, on koa, R. R. Whitten; allotype ♀ (BISHOP), and 5 paratypes, merely labelled koa—presumably from Maui; 1 paratype, Olinda, about 1000 m, Maui, IV-1967, N. L. H. Krauss. Host: *Acacia koa* Gray.

Differs from *laticollis* Sharp in having prothorax slightly longer than broad, less evenly raised medially, and elytron less narrowed posteriorly and extensively dark. This species is intermediate between *Plagithmysus* (s. str.) and *Neoclytarlus*, having more the appearance of the former and the principal key character of the latter.

***Plagithmysus* (*Neoclytarlus*) *yoshimotoi*** Gressitt and Davis, sp. n.  
(Fig. 8)

♀. Reddish brown to pitchy black: Head pitchy, slightly tinged with reddish brown on gena and mandible; antenna dark reddish brown, slightly paler distally; prothorax pitchy black; scutellum nearly black; elytron pitchy brown basally, gradually paler to testaceous apically; ventral surfaces pitchy brown, partly paler reddish and more pitchy black at side of thorax; legs reddish brown, fore leg more pitchy. Body in large part very thinly and sparsely clothed with pubescence: nearly glabrous on upper portion of head and prothorax but with a very few erect pale hairs on latter; scutellum with a few scattered hairs; elytron with sparse minute pale hairs, a little denser along basal portion of side and along suture; ventral surfaces sparsely clothed with subrecumbent tawny hairs; legs similarly clothed with more whitish hairs.

*Head* distinctly narrower than prothorax, densely and finely rugose-punctate, with a few larger reticulate punctures on side of occiput; frons smooth and slightly grooved medially; gena coarsely punctured, as deep as eye. *Antenna* just over  $1/2$  as long as body; segment 1 slightly arched, thickest well before apex; 2 thickened apically, barely  $2 \times$  as long as broad; 3 shorter than 1, subequal to 4; 4–10 successively shorter; 8–10 fairly short and stout; 11 stout but much longer than 10. *Prothorax* as long as broad, barely narrower at apex than at base, subevenly convex at side; disc with a narrow median ridge, very slightly depressed in middle and crossed by several short carinae, partly interrupted; sublateral ridge broad and low, sinuate, most distinct posteriorly; surface densely punctured, subrugose to subasperate. *Scutellum* short and rounded-truncate behind. *Elytron*  $6 \times$  as long as broad, subparallel in basal  $1/2$ , then gradually narrowed with apex rounded externally, somewhat dehiscent and subevenly rounded; disc with 2 feeble raised lines and dense fine punctures which become feeble posteriorly. *Ventral surfaces* closely punctured at side of thorax, much more finely so medially and on abdomen. *Legs* rather short and compressed; hind femur flattened and gradually broadened from base, barely reaching to apical  $1/6$  of elytron; hind tibia gradually widened and slightly sinuate; hind tarsal segment 1 barely as long as remainder combined. Length 5.6 mm; breadth 2.7.

Holotype ♀ (BISHOP 8032), Oili Puu, 2,000 m, Haleakala Crater, Maui, 23-VII-1965, C. M. Yoshimoto.

Differs from *chenopodii* (Perkins) and *looki* (Swezey) in lacking a distinct

hind femoral petiole, in having prothorax rounded at side and with narrow median ridge, and elytron subrounded apically. This species is also an intergrade between *Plagithmysus* s. str. and *Neoclytarlus*, as it lacks the petiolate hind femur of the latter and the long hind femur and hairy tarsus of the former. It is not near *Callithmysus* and does not agree with *Paraclytarlus*. It is somewhat related to *Aeschrithmysus*.

***Plagithmysus (Neoclytarlus) looki ukae*** Gressitt and Davis, subsp. n. (Fig. 11)

♂. Pitchy brown, paler brown on antenna and legs; dorsum unevenly pale pubescent, with suggestion of a stripe on each side of median ridge of pronotum, and with pubescent areas vaguely mottled with glabrous on base of elytron and along sutural portion; ventral surfaces sparingly pubescent.

*Head* closely punctured to subasperate above, finely punctured on frons and gena, which is not quite as deep as eye. *Antenna* with only a few hairs basally, with segment 1 slender and slightly arched; 4 longer than 3 which is barely longer than 5; 5–10 progressively distinctly shorter; 11 barely as long as 7. *Prothorax* slightly broader than long, subevenly rounded at side, broadly and feebly raised medially, with an arched anterior carina, 2 posterior carinae, and a few small tubercles in center; surface finely punctured. *Scutellum* rounded behind. *Elytron* nearly  $6 \times$  as long as broad, gradually narrowed, with suture strongly dehiscent in apical 1/6, with apex rounded-subacute; surface finely punctured, subrugose basally. *Ventral surfaces* finely punctured, sparsely so on abdomen. *Legs* fairly slender; hind femur thickened in distal 3/5; hind tibia slightly sinuate; hind tarsal segment 1 as long as remainder combined. Length 7 mm; breadth 1.4.

♀. More extensively pubescent, with more distinct postmedian stripe on elytron. Length 9.6 mm; breadth 2.5.

*Paratypes*: Some ♀ specimens much paler: Reddish brown with pale pubescence. Length 6–13 mm; breadth 1.2–2.8.

Holotype ♂ (BISHOP 8034), Kawaihae-uka, 1050 m, Kohala Mts, Hawaii, reared from *Chenopodium*, 30-I-1968, C. J. Davis; allotype ♀ (BISHOP), same data; many paratopotypes, same data.

Differs from *looki* Swezey in being slightly broader, with prothorax more evenly rounded and elytron more distinctly striped.

***Plagithmysus (Neoclytarlus) looki keanakolui*** Gressitt and Davis, subsp. n. (Fig. 12)

♂. Largely pale ochraceous brown, more reddish on prothorax and on femoral clubs. Body almost entirely clothed with sparse pale buff pubescence, somewhat scarce on median portion of pronotum and somewhat incomplete on elytron with many small glabrous spots; a little more oblique or suberect on ventral surfaces and undersides of femora, very

scarce on tibiae and tarsi.

*Head* much narrower than prothorax, finely punctured with some larger shallow punctures on occiput; gena somewhat deeper than eye. *Antenna*  $2/3$  as long as body; segment 3 slightly shorter than 1 and 4, as long as 5; 5–10 decreasing strikingly in length; 11 slightly longer than 8. *Prothorax* a little broader than long, about as broad as elytra, subevenly convex at side; disc with a fairly small and prominent anterior tubercle surmounted by a short transverse carina, and a larger more gradually sloping posterior tubercle with 2 fairly broad low carinae; sublateral ridge vague except posteriorly where it forms a low oblique ridge; disc minutely granulose to punctate. *Elytron*  $3.5 \times$  as long as prothorax and nearly  $6 \times$  as long as broad, subevenly narrowed, dehiscent in apical  $1/4$ , then strongly oblique with subrounded apex near external margin; disc closely punctured, with 2 fairly distinct raised lines. *Ventral surfaces* finely punctured. *Legs* moderately stout; hind femur nearly reaching elytral apex, with petiole  $2/3$  as long as club, which is fairly stout; hind tibia moderately flattened, nearly straight; hind tarsal segment 1 nearly as long as remainder combined. Length 11.5 mm; breadth 2.5.

♀. Antenna not quite  $2/3$  as long as body; hind femur not quite reaching elytral apex, petiole just over  $1/2$  as long as club. Length 12.8 mm; breadth 3.1.

Paratypes: Length 9.2–11 mm; breadth 2.4–2.8.

Holotype ♂ (BISHOP 8035), Dr. David Douglas's Monument, 1,790 m, nr Keanakolu, Island of Hawaii, reared from *Chenopodium* sp., 11-XII-1952 C. J. Dains (#83); allotype (BISHOP), same data; 4 paratypes, same data.

Differs from *I. looki* (Swezey) in being somewhat stouter, with petiole of hind femur longer, carinae of pronotum longer, and dorsal pubescence more even, with less striking sexual differences. Differs from *looki ukae* G. & D. in the same characters of hind femur and pronotum, and in having less sexual pattern difference.

**Plagithmysus (Neoclytarlus) usingeri** Gressitt and Davis, sp. n.  
(Fig. 7)

♀. Testaceous to pitchy brown: Head reddish brown to pitchy; antenna pale ochraceous; prothorax pitchy brown, more reddish at side; scutellum reddish pitchy; elytron pitchy brown with much of basal portion, including humerus, and outer median portion to middle testaceous; ventral surfaces reddish brown, paler medially; legs ochraceous with femoral clubs reddish brown. Body unevenly clothed with pale pubescence: Head with thin buffy white pubescence, more conspicuous on sides of frons and on genae; antenna with very few oblique hairs basally and very fine adpressed golden hairs distally; prothorax with very minute hairs above and fairly long erect pale hairs beneath; scutellum largely clothed with pale yellow pubescence; elytron with sparse whitish pubescence just internal

to humerus, a moderately broad sutural stripe of fairly close yellowish buff pubescence on posterior 2/3, and remainder with minute golden hairs. Ventral surfaces moderately clothed with sparse erect pale golden hairs medially and with denser recumbent pale yellow pubescence along side from middle of metepisternum; legs thinly clothed with short oblique pale hairs, slightly longer and stouter on tibia and still longer and whitish on hind tarsus.

*Head* nearly as broad as prothorax, finely rugose-punctate, slightly ridged on upper portion of frons; gena nearly as deep as eye. *Antenna* 3/5 as long as body, fairly slender, thickened slightly on apex; segment 1 slender, gradually thickened to apex, nearly straight; 2 slender, fully  $2 \times$  as long as broad; 3 slightly shorter than 1, subequal to 4; 4-9 successively considerably shorter; 9-11 subequal. *Prothorax* distinctly broader than long, slightly narrower at apex than at base, widest a little behind middle and constricted between there and base; disc with a strongly raised small tubercle behind anterior margin and a larger more gradually sloping one of about the same height behind middle, each with a single more or less sinuate carina; sublateral ridge strongly arcuate, only slightly raised except near posterior end where it forms an oblique ridge; surface very closely punctured; middle of side with a small callosity. *Scutellum* short and rounded behind. *Elytron*  $5.6 \times$  as long as broad, strongly and evenly narrowed, dehiscent and arcuate posteriorly to subrounded apex; disc very closely punctured, more feebly so posteriorly. *Ventral surfaces* minutely punctured at side of thorax, more sparsely so medially, very sparsely punctured on median portion of abdomen. *Legs* quite slender; hind femur clavate beginning at middle, just exceeding elytral apex; hind tibia only slightly broadened, nearly straight; hind tarsal segment 1 distinctly longer than remainder combined. Length 10.6 mm; breadth 2.8.

Holotype ♀ (BISHOP 8036), Puu Palikea, at about 500 m, Waianae Mts, Oahu VI-1958, E. J. Ford, Jr. Dedicated to the late Dr. Robert Leslie Usinger, one-time staff-member of Bishop Museum and authority on Hawaiian Hemiptera.

Differs from *immundus* Sharp in having prothorax narrower and more strongly tuberculate, and elytron without bands and with sutural stripe more distinct. Differs from *superstes* (Zimmerman) in having hind femur with shorter petiole, pronotum more strongly tuberculate and elytron without bands and with more complete sutural stripe. This is another species intermediate between *Plagithmysus* s. str. and *Neoclytarlus*. It has more the prothorax, elytron and tarsi of the former and hind femur and antenna of the latter.

**Plagithmysus (Neoclytarlus) metrosideri** Gressitt and Davis, sp. n. (Fig. 17)

♀. Reddish brown to black, in part clothed with pale pubescence: head pitchy black, reddish near mouthparts; antenna bright reddish basally,



duller apically; prothorax pitchy black; scutellum pitchy; elytron pitchy brown basally and along side of basal  $1/2$ , deep reddish brown on remainder; ventral surfaces pitchy on prosternum and side of hind thorax, reddish brown medially on metasternum, and slightly paler on abdomen; legs reddish brown, slightly darker on femora clubs. Head and prothorax with moderately close adpressed pale hairs; antenna with thin adpressed golden brown pubescence distally and a few oblique hairs basally; elytron with only a few sparse short oblique pale hairs at side; ventral surfaces moderately pubescent on thorax, sparsely so on abdomen; legs with sparse oblique reddish hairs.

*Head* rugose above, densely punctured and subrugose on frons and gena; frons about as broad as deep, wider beneath; gena a little shallower than eye, which is deeper than wide. *Antenna*  $3/5$  as long as body, fairly stout; segment 1 thickened to before apex, partly punctured; 2 hardly thickened apically,  $2 \times$  as long as broad; 3 barely  $2/3$  as long as 1, slightly shorter than 4; 4-10 gradually decreasing in length; 11 as long as 7. *Prothorax*  $1/7$  broader than long, slightly broader at apex than at base, broadly rounded at side, widest just anterior to middle; disc medially raised near anterior margin and behind middle, hardly raised just anterior to middle, with 1 carina anteriorly and 2 posteriorly; surface closely rugulose, in part subgranulose or subpunctate, more granulose at side. *Scutellum* rounded behind, sparsely punctured. *Elytron* nearly  $6 \times$  as long as broad, gradually and feebly narrowed posteriorly,  $3/4$  as wide before apex as at base, dehiscent in apical  $1/8$  and rounded externally, with apex narrowly rounded and closer to suture than to external margin; surface coarsely and somewhat closely punctured on basal  $1/3$ , gradually more sparsely punctured and a little more weakly so toward apex. *Ventral surfaces* densely punctured on thorax, weakly and sparsely punctured on abdomen. *Legs* fairly stout and short; hind femur reaching short of elytral apex by  $2/5$  femoral length, somewhat gradually clavate just beyond middle; hind tibia nearly straight, feebly compressed; hind tarsal segment 1 not quite as long as remainder combined. Length 6 mm; breadth 1.28.

Holotype ♀ (BISHOP 8037), Alakai Swamp, 1200 m, near Kokee, Kauai, on *Metrosideros polymorpha* (Gaudichaud) Rock, collected by L. D. Tuthill.

Differs from the 3 known Kauai species—*annectens*, *longipes* and *obscurus* in being much less narrowed, with elytron broader posteriorly and lacking pubescent bands, and with legs shorter and stouter.

**Plagithmysus (Neoclytarlus) decurrensae** Gressitt and Davis, sp. n. (Fig. 14)

♀. Slender, subparallel-sided. Reddish brown to slightly pitchy: Head reddish brown, darker above, and on apical portions of frons and gena; antenna reddish brown, paler distally; prothorax reddish brown with

carinae pitchy; scutellum reddish brown; elytron dull reddish brown, paler on posterior half and on extreme base; ventral surfaces pale reddish brown, duller on abdomen; legs reddish brown, slightly darker on tibiae and femoral clubs. Body thinly clothed with subadpressed golden hairs, with scattered suberect pale hairs on ventral surfaces of head and thorax, and a few on side at base of prothorax; legs with fairly short and oblique yellowish to reddish hairs.

*Head* narrower than prothorax, slightly wider than apex of prothorax, closely punctured with a few larger flat-bottomed punctures on occiput and moderate punctures on frons with closer punctures on gena, which is about as deep as eye. *Antenna* over  $1\frac{1}{2}$  as long as body; segment 1 shiny, gradually thickened; 2 at least  $2 \times$  as long as broad; 3 slightly shorter than 1, as long as 4 or 5; 5-10 decreasing in length; 11 as long as 8. *Prothorax* slightly broader than long, evenly rounded at side; median ridge fairly broad, slightly depressed anterior to middle with 1 carina anteriorly and 2 posteriorly; sublateral ridge weak, more distinct and subgranulose posteriorly; surface closely reticulate-punctate, a little more sparsely punctured at side with a small callosity at middle of side. *Scutellum* rounded behind. *Elytron*  $4 \times$  as long as prothorax, nearly  $6 \times$  as long as broad, gradually narrowed to near apex which is gradually narrowed externally but strongly dehiscent and oblique internally and subacute at apex; surface with 2 distinct raised lines and with dense small punctures, weaker posteriorly. Ventral surfaces moderately punctured at side of thorax, feebly punctured on abdomen. *Legs* fairly slender; hind femur with petiole a little longer than club, nearly reaching elytral apex; hind tibia somewhat compressed, nearly straight; hind tarsal segment 1 slightly longer than remainder. Length 10.8 mm; breadth 2.4.

Paratypes: Length 7-10 mm; breadth 2-2.4.

Holotype ♀ (BISHOP 8038), Waimea, 914 m, Island of Hawaii, reared from *Acacia decurrens*, 1-IX-1952, by C. J. Davis (#51); 2 paratopotypes, same data.

Differs from *mezoneuri* (Swezey) in being much less pubescent above, in having pronotum more broadly and evenly convex medially and more extensively raised on sublateral ridge, and elytron more elongate, more tapered posteriorly and more distinctly punctured.

**Plagithmysus (Neoclytarlus) rusticus** Gressitt and Davis, sp. n.

♀. Slender, somewhat dorsoventrally compressed. Reddish brown to pitchy: Head reddish brown; antenna pale reddish brown basally, duller distally; prothorax reddish brown, slightly pitchy anteriorly; scutellum dull brown; elytron brown with a slightly reddish tinge, slightly paler posteriorly; ventral surfaces pale reddish brown, partly darker on sides and apical margins of abdominal sternites; legs largely testaceous brown, pitchy brown on femoral clubs and apices of tibiae. Body thinly clothed with

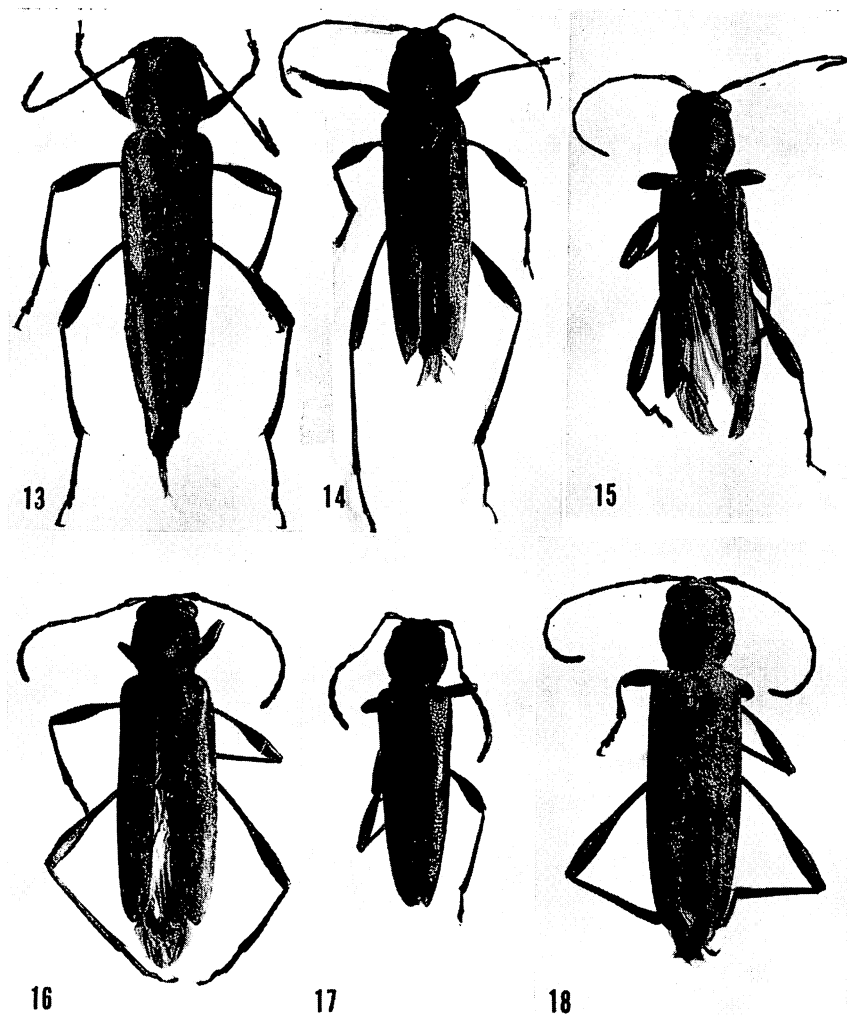


FIG. 13-18. 13, *Plagithmysus* (*Neoclytarlus*) *acaciae* n. sp.; 14, *P. (N.) decurrensae* n. sp.; 15, *P. (N.) dubautiae dubautiae* n. sp.; 16, *P. (N.) dubautiae arboreae* n. ssp.; 17, *P. (N.) metrosideri* n. sp.; 18, *P. (N.) wattleae* n. sp.

subadpressed sparse pale pubescence; legs with more oblique hairs and hind femoral petiole with suberect hairs of moderate length.

*Head* distinctly narrower than prothorax, minutely punctured; gena not quite as deep as eye. *Antenna* just over  $1/2$  as long as body; segment 1 fairly straight, thickened before apex; 2 not quite  $2 \times$  as long as broad; 3 a little shorter than 1, not quite as long as 4 or 5; 5-10 gradually shorter and somewhat stouter. *Prothorax* nearly as long as broad, subobtusate at side and widest just anterior to middle; disc with anterior and posterior

tubercles low but fairly broad, with 1 and 2 carinae respectively; sub-lateral ridge only evident posteriorly where it forms a low oblique ridge; surface reticulate-punctate above, more rugose to granulose at side. *Scutellum* trapeziform, slightly punctured. *Elytron*  $4.7 \times$  as long as broad, gradually narrowed to near apex and then rounded; disc distinctly and closely punctured basally, much more feebly so posteriorly. *Ventral surfaces* feebly punctured. *Legs* fairly slender; hind femur not quite reaching elytral apex, with petiole slightly longer than club which is elliptical; hind tibia flattened, gradually widened, feebly sinuate; hind tarsal segment 1 as long as remainder combined. Length 7.5 mm; breadth 2.

Holotype ♀ (BISHOP 8039), Saddle Road, 2000 m, Island of Hawaii, 12-V-1952, on *Dubautia* sp., collected by C. J. Davis.

Differs from *mezoneuri* (Swezey) in being narrower, with prothorax obtuse instead of rounded at side, elytron rounded apically and dorsum much less pubescent.

***Plagithmysus (Neoclytarlus) filipes sophorae*** Gressitt and Davis, subsp. n. (Fig. 10)

♂. Dark brown, paler reddish brown on basal portion of antenna, on humerus and external margin of elytron, and parts of tarsi; testaceous on femoral petioles and fairly pale on bases of tibiae. Body rather closely clothed with whitish pubescence; fairly general on head and prothorax, slightly sparser or darker on raised portions of pronotum; on elytron forming 4 more or less distinct transverse bands crossed by 3 longitudinal stripes of sparser pubescence; more silvery on ventral surfaces and fairly uniform except for small subglabrous spot on side of each abdominal sternite and middle portion of apical margin of each glabrous; more tawny on femoral clubs, sparser on tibiae and tarsi, and both ventral surfaces of body and undersides of femora with long suberect silvery white hairs.

*Head* slightly narrower than prothorax, finely rugulose-punctate; gena with a few larger punctures, nearly as deep as eye. *Antenna*  $5/6$  as long as body, fairly slender; segment 3 slightly longer than 1 and slightly shorter than 4; 5 nearly as long as 4; 5-10 decreasing in length; 11 as long as 9. *Prothorax* as broad as long, weakly convex at side, nearly as broad as elytron; median ridge very weak, but anterior tubercle with a prominent arcuate carina near anterior margin and posterior tubercle with 2 similar slightly less prominent carinae behind middle and very slightly raised in middle between tubercles; sublateral ridge rather broadly raised, more distinctly so posteriorly. *Elytron* not quite  $3 \times$  as long as prothorax, just over  $5 \times$  as long as broad, subevenly and fairly strongly narrowed to near apex, then arcuately narrowed externally and obliquely narrowed internally with apex rounded-subacute; disc minutely subgranulose-punctate. *Ventral surfaces* minutely punctured. *Legs* fairly long and slender; hind femur with nearly  $1/3$  its length extending beyond elytral

apex, petiole about  $1/3$  longer than club which is fairly sudden and quite stout; hind tibia only slightly broadened, nearly straight; hind tarsal segment 1 as long as remainder combined. Length 7.4 mm; breadth 1.75.

♀. Antenna not quite  $2/3$  as long as body; hind femur slightly exceeding elytral apex, with petiole nearly  $2 \times$  as long as the flattened and elliptical club. Length 7.2 mm; breadth 1.5.

Paratypes: Length 7.6–9.0 mm; breadth 1.8–2.16.

Holotype ♂ (BISHOP 8040), Halepiula 3, alt. 610 m, N. Kona, Island of Hawaii, reared from *Sophora chrysophylla* branches, XII-1968 (H-68-7), C. J. Davis; allotype ♀ (BISHOP), same data; paratype ♂, same data; paratype ♀, Pohakuloa, 2000 m, 20-XII-1968; reared from *Sophora chrysophylla* branches (H-68-1), Davis. Another ♀ specimen, entirely dark above, with much shorter hind femur, was reared with the preceding. It is tentatively placed here.

Differs from *filipes* (Sharp) in being more densely pubescent, more distinctly banded and striped, and with femora longer and with longer petiole, and in having the arms of 6th sternite of ♂ more narrowly separated, more straight internally but curved inward at apex and with less overlapping distal hairs.

**Plagithmysus (Neoclytarlus) acaciae** Gressitt and Davis, sp. n.  
(Fig. 13)

♂. Reddish brown to ochraceous, extensively clothed with white pubescence: Head reddish brown, pitchy above and pale around mouthparts; antenna reddish brown, slightly paler distally; pronotum and elytron fairly dark reddish brown, nearly pitchy on inner base of elytron; ventral surfaces reddish ochraceous, paler on median portions of thoracic sterna and darker on abdomen; legs reddish brown with coxae and bases of femora pale ochraceous. Head somewhat densely clothed with white pubescence and fine suberect hairs; antenna thinly clothed with pale adpressed short hairs, moderately clothed with suberect whitish hairs; prothorax moderately clothed, with 3 swollen strips of pronotum more sparsely pubescent, numerous erect silvery white hairs on prosternum; scutellum pubescent on side; elytron irregularly pubescent, with 3 vague broad bands, 1st basal, 2nd premedian, 3rd occupying posterior  $2/5$ ; ventral surfaces moderately clothed, with denser subrecumbent hairs at side and more erect hairs medially; legs moderately clothed with oblique hairs which are whitish on femora and more brownish on tibiae and tarsi.

Head nearly as broad as prothorax, with eyes somewhat projecting; occiput granulose-punctate; frons finely punctured on each side; gena rugose-punctate, deeper than eye; eye subrounded, somewhat deeply emarginate. Antenna  $4/5$  as long as body, slender; segment 1 slender basally, gradually thickening to somewhat before apex; 2 strongly thickened apically,  $1/3$  as long as 1; 3 fully as long as 1, slightly longer than 4 or 5; 6 shorter; 6–10 progressively considerably shorter; 11 nearly as long as 7.

*Prothorax* about as broad as long, about as wide at apex as at base, moderately rounded at side, with a feeble indentation anterior to middle at side; disc with median strip strongly raised and obtusely carinate near anterior margin, moderately raised posteriorly with 2 widely separated subtransverse carinae; a lesser raised strip on each side of middle of disc and middle of side slightly raised; surface asperate on middle portion of median strip and granulose-punctate on remainder. *Scutellum* rounded behind. *Elytron*  $5.7 \times$  as long as broad, somewhat evenly narrowed from just behind humerus to somewhat before apex which is obliquely dehiscent from suture and gradually narrowed on outer side, forming a subacute angle; disc finely punctured throughout, but less distinctly so posteriorly, somewhat raised on basal portion near suture and with a vague raised median line on basal  $1/2$ . *Ventral surfaces* minutely and in part sparsely punctured. *Legs* moderately stout with hind femur strongly swollen in distal  $1/2$ ; hind tibia moderately flattened, very slightly arched preapically; hind tarsal segment 1 slightly arched and compressed, a little longer than remainder combined. Length 9.5 mm; breadth 2.2.

♀. Body largely pitchy above, more reddish on raised portions of pronotum and on scutellum and antennae; ventral surfaces largely reddish on hind thorax and pitchy black on abdomen; pale pubescence largely concentrated on central and basal portions on pronotum and more or less continuous, without bands, on outer portion of elytron and very sparse on inner portion. Length 10 mm; breadth 2.6.

Paratypes: Whitish pubescence sometimes sparsely covering almost entire dorsum and sometimes more irregularly placed; dorsum varying from ochraceous to pitchy black. Length 6.5–10.6 mm; breadth 1.5–2.5.

Holotype ♂ (BISHOP 8041), Kawaihae Uka, 1060 m, Hawaii, 9-II-1959, reared from *Acacia koaia*, C. J. Davis; allotopotype ♀ (BISHOP), same data; 15 paratopotypes (BISHOP, DAVIS coll., BMNH, USNM, CAS), same data, and 17–23-XII-1968 (H-68-3), Davis.

Differs from *nodifer* (Sharp) in having pubescence whiter, finer, more generally distributed, and in part denser, with pronotum less raised along median line, a little less raised on side of disc, more convex at side, with elytron more heavily punctured, narrower, less strongly narrowed, subcaute instead of obtuse apically, hind femora more strongly swollen, and tibiae and tarsi stouter, longer and with more whitish hairs.

**Plagithmysus (Neoclytarlus) dubautiae dubautiae** Gressitt and Davis, sp. n. (Fig. 15)

♂. Pitchy black, to reddish brown or nearly black, sparingly clothed with white pubescence: Head pitchy black, reddish on mouthparts and lower part of gena, rather thinly clothed with some subadpressed whitish hairs and a few suberect hairs, denser on gena and in emargination of eye; antenna dark reddish brown, in part slightly pitchy, thinly clothed with short reddish buff pubescence beyond segment 4, and with sparse oblique

whitish hairs on basal segments; prothorax black, faintly tinged with pitchy on part of disc, sparsely clothed with subadpressed whitish hairs at sides and with a few erect whitish hairs on lower side; scutellum dark reddish brown, with just a few whitish hairs; elytron pitchy black basally, gradually becoming reddish brown toward apex, sparsely and irregularly clothed with adpressed whitish hairs, forming 3 somewhat vague bands, 1st basal, 2nd just before middle and last occupying distal 3rd; ventral surfaces pitchy black, varying in part to reddish brown, moderately clothed with rather long oblique whitish hairs; legs reddish brown with swollen portions of femora pitchy brown, 1st hind tarsal segment nearly ochraceous; legs sparsely clothed with suberect white hairs on femora and more oblique brownish hairs on tibiae and tarsi.

*Head* distinctly narrower than prothorax, finely granulose above, distinctly punctured on frons, smooth along median line, more densely punctured on gena, which is as deep as eye; eye a little broader than deep. *Antenna* 3/5 as long as body, fairly slender; segment 1 slender basally, thicker near apex; 2 fairly slender, 1/3 as long as 1; 3 a little shorter than 1 and a little longer than 4; 3-10 decreasing considerably in length; 11 about as long as 8. *Prothorax* almost as long as broad, slightly broader at apex than at base, obtusely rounded at side with widest point just behind middle; disc with a tubercle on median line near anterior margin bearing an arcuate transverse crest and a less prominent swelling on median line behind middle bearing 2 arcuate subtransverse carinae; surface otherwise moderately closely punctured and with a slightly swelling on each side near base and a much weaker one on side near anterior margin. *Scutellum* rounded behind, minutely punctured. *Elytron*  $5.5 \times$  as long as broad, somewhat gradually narrowed from just behind humerus to a short distance just before apex then dehiscent about as much as narrowed externally with extreme apex subacutely rounded; surface moderately and rather closely punctured on basal 2/5, then less distinctly punctured and faintly rugulose on remainder. *Ventral surfaces* moderately smooth, feebly punctured, more shiny on abdomen. *Legs* fairly slender with femora strongly swollen and somewhat flattened, hind femur clavate for slightly less than distal half; hind tibia slender, nearly straight, slightly flattened; hind tarsus with segment 1 about as long as remainder combined. Length 9 mm; breadth 2.35.

♀. Ventral surfaces pitchy black to pitchy brown, blacker on prosternum and last 4 abdominal sternites, browner on remainder; legs largely dark reddish brown, slightly darker on femoral clubs. Length 10.8 mm; breadth 2.5.

*Paratypes*: Dorsum varying from reddish brown to pitchy black with white pubescence extensive to very meager; venter pitchy brown to often pale reddish brown on thoracic sterna. Length 8-9.5 mm; breadth 1.8-2.4.

Holotype ♂ (BISHOP 8042), Saddle Road, 1,950 m, Hawaii, 17-IX-1952, on *Dubautia montana*, C. J. Davis; allotopotype ♀ (BISHOP), same data; 7 paratopotypes (BISHOP, Davis coll., BMNH, USNM, CAS), same data.

Differs from *railliardiae* (Perkins) in being more elongate, with much finer puncturation and more extensive pubescence. Differs from *fragilis* (Sharp) in being larger, with more rounded prothorax, shorter legs and less suddenly and less briefly clavate hind femur.

**Plagithmysus (Neoclytarus) dubautiae arboreae** Gressitt and Davis, subsp. n. (Fig. 16)

♂. Slender, moderately pubescent. Reddish brown, paler on apical portion of antenna and on femoral petioles, slightly darker on elytron and pronotum. Dorsum with a few fine erect hairs on head and pronotum and with 2 vague whitish stripes and lower side moderately white-pubescent; ventral surfaces with fairly numerous oblique and erect silvery white hairs and some suberect hairs also on undersides of femora.

*Head* narrower than prothorax but wider than its apex, closely punctured, subreticulate above. *Antenna* not quite  $2/3$  as long as body, slightly thickened apically; segment 3 slightly shorter than 1 and slightly longer than 4; 4–10 gradually shorter and thicker; 11 as long as 8. *Prothorax* distinctly broader than long, subobtuse at side; anterior and posterior median tubercles moderate, hardly connected, and with 1 carina anteriorly and 2 posteriorly; sublateral ridge vague anteriorly but distinctly raised in an oblique swelling posteriorly; surface reticulate-punctate. *Elytron* just over  $5 \times$  as long as broad, gradually narrowed to near apex and then narrowed externally, dehiscent and rounded-obtuse apically; surface somewhat strongly punctured postbasally, more finely and more asperately so posteriorly. *Ventral surfaces* rather sparsely punctured. *Legs* slender; hind femur reaching elytral apex, with petiole distinctly longer than the fairly stout club; hind tibia gradually broadened and nearly straight; hind tarsal segment 1 distinctly longer than remainder combined. Length 7.4 mm; breadth 1.9.

♀. Elytron more tapered preapically; hind femur not quite reaching elytral apex and club more slender and shorter than in ♂. Length 6.5 mm; breadth 1.4.

Paratypes: Dorsum sometimes with pubescent pale bands apparently lacking, and some with fairly complete bands. Length 4.3–9.2 mm; breadth 1.2–2.4.

Holotype ♂ (BISHOP 8043), Puu Kalepa, 2100 m, Mauna Kea, Island of Hawaii, reared from *Dubautia arborea*, 3-XII-1952, C. J. Davis (#79); allotopotype ♀ (BISHOP), same data; 11 paratopotypes, same data. Probably also referable here are 6 from Kaula Gulch, 2100 m, Mauna Kea, reared from *Dubautia* sp., 31-X-1952, C. J. Davis (#67).

Differs from *d. dubautiae* G. & D. in averaging smaller in size, in being



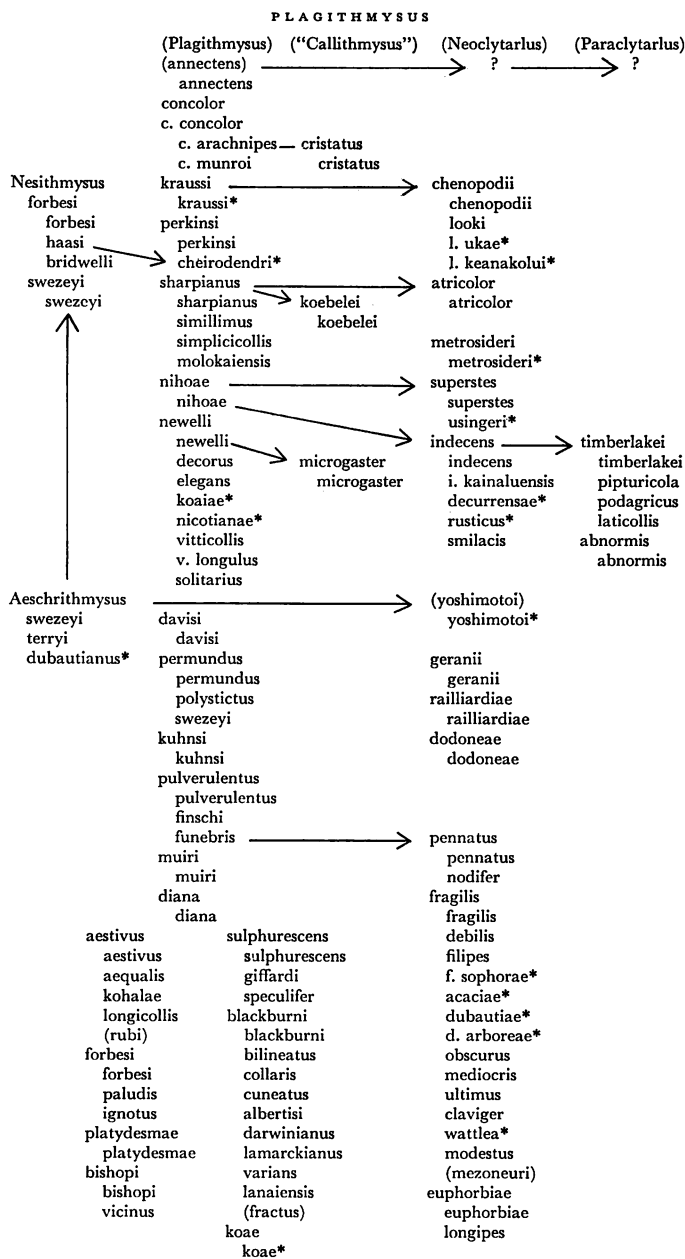
more finely punctured, with prothorax more obtuse at side and widest at middle, with postmedian tubercle higher.

**Plagithmysus (Neoclytarlus) wattleae** Gressitt and Davis, sp. n. (Fig. 18)

♂. Strongly pubescent; pale reddish brown to pitchy: Head pitchy, reddish anteriorly except for tip of mandible; antenna pale reddish brown, very slightly pitchy near middle of antennal scape; prothorax pitchy brown above, more reddish at side; scutellum reddish pitchy; elytron reddish brown, paler on base and along external margin; ventral surfaces largely pale reddish brown, slightly darker at side of abdomen; legs dull reddish brown with femoral petioles testaceous and tarsi partly paler than tibiae. Body largely clothed with adpressed whitish gray pubescence and fairly abundant long erect silvery white hairs beneath and on undersides of femora: Head with pubescence partly sparser above and denser beneath; much thinner on antenna with sparse short oblique hairs; fairly dense on pronotum with vague suggestion of 3 longitudinal tawny stripes; fairly thin on scutellum; on elytron denser on inner half and along external margin and sparser along side from humerus nearly to apex; fairly general and long on ventral surfaces; moderate on legs but denser on femoral clubs and particularly long on undersides of femora.

*Head* not quite as wide as apex of prothorax, coarsely rugose-punctate with a few larger punctures on occiput; gena as deep as eye. *Antenna* 4/5 as long as body, slender; segment 1 gradually thickened to some distance before apex, fairly straight; segment 2 more than  $2 \times$  as long as broad; 3 a little longer than 1 and a little shorter than 4; 4-10 gradually decreasing in length; 11 about as long as 9, then slender. *Prothorax* slightly broader than long, moderately convex at side, nearly as broad as elytra; median ridge broad and low, hardly distinguishable as a ridge except for a strongly raised carina near anterior margin and 2 slightly weaker ones behind middle; sublateral ridge weak, moderately raised in an oblique swelling posteriorly; surface closely granulose-punctate, with a few larger subreticulate punctures anteriorly. *Scutellum* short and broadly rounded behind. *Elytron*  $3.1 \times$  as long as prothorax and nearly  $6 \times$  as long as broad, somewhat gradually narrowed, then suddenly strongly dehiscent and slightly narrowed externally to obtusely rounded apex; disc minutely and closely rugose-punctate. *Ventral surfaces* minutely punctured, closely so in large part. *Legs* fairly long and slender; hind femur with petiole slender and slightly longer than club which is very suddenly thickened and wide to apex; hind tibia slightly widened, nearly straight; hind tarsal segment 1 distinctly longer than remainder combined. Length 8 mm; breadth 2.1.

♀. Antenna  $3/4$  as long as body; pronotum with median ridge and sublateral ridge a little more distinct, and less pubescent; elytral apex more acute; hind femur less suddenly swollen and less strongly swollen.

*Tentative allocation of species to subgenera and species-groups, with cross relationships<sup>3</sup>*

<sup>3</sup>An arrow indicates possible relationship, either to a species or to a species-group. These are not intended to indicate evolutionary lines, but rather to emphasize the artificial nature of the subgenera, and suggest need for further study. Parentheses indicate allocation is uncertain.

Length 10.75 mm; breadth 2.45.

Holotype ♂ (BISHOP 8044), Olinda, 1050 m, E. Maui, reared from *Acacia decurrens* (Wattle), X-1952, C. J. Davis; allotopotype ♀ (BISHOP), same data.

Differs from *railliardiae* (Perkins) in being larger, with antenna and legs longer; hind femur more suddenly and strongly clubbed, dorsum more pubescent and elytron more finely punctured and more gradually tapered.

KEY TO THE PLAGITHMYSINES

- 1. Prothorax as broad or nearly as broad as elytra; hind wings hidden or nearly hidden by elytra; apex of hind femur not nearly reaching elytral apex; legs with very few hairs .....2
- Prothorax usually much narrower than elytra; hind wing usually extending beyond elytral apex; apex of hind femur often exceeding elytral apex (*Plagithmysus* s. lat.).....8
- 2( 1). Prothorax transverse, rounded at side, disc with feeble swellings; antenna less than 1/2 as long as body; elytra parallel-sided in basal 2/3, with 2 or 3 distinct ridges (*Aeschrithmysus*) .....3
- Prothorax about as broad as long, tuberculate to rounded at side, with prominent tubercles on disc; antenna about 1/2 as long as body; elytron long, somewhat gradually tapered, about 1/2 as wide near apex as near base (*Nesithmysus*).....5
- 3( 2). Pronotum with almost no swelling on basal portion of disc, and a broad low swelling on anterior part; elytron moderately clothed with fine adpressed pale hairs, and with very dense punctures.....4
- Pronotum with 3 slight swellings on basal portion of disc, outer one oblique, and a somewhat narrow, weakly corrugated median swelling on anterior part; elytron with sparse minute hairs, showing reddish brown surface with many minute but separate punctures; length 17 mm; Maui; *Railliardia* .....*A. swezeyi* Perk.
- 4( 3). Pronotum subglabrous, its anterior swelling with slight suggestion of corrugation; elytron reddish, in part very weakly pubescent, particularly on ridges; length 19 mm; Maui; *Argyrioxiphium* ..... *A. terryi* Perk.
- Pronotum entirely pubescent, its anterior swelling subgranulose; elytron blackish, entirely pubescent; length 13-16 mm; Maui; *Railliardia* ..... *A. dubautianus*\*
- 5( 2). Prothorax more or less tuberculate at middle of side; dorsum brownish black to black; femoral clubs, at

\*Described as new in this paper

- least, blackish .....6
- Prothorax somewhat rounded at side, with at most a slight callosity at middle of side; dorsum largely reddish brown, or partly reddish pitchy and partly testaceous; femoral clubs largely reddish brown.....7
- 6( 5). Prothorax with 6 prominent tubercles, 4 on disc all fairly abrupt, in part steep-sided and somewhat truncate, and lateral tubercle less abrupt, but large and nipple-shaped; elytron with vague mottling of yellow hairs, mostly on basal 2/3; pronotum with scattered hairs; length 19 mm; Maui; *Pelea* ..... *N. forbesi* Perk.
- Prothorax with lateral tubercle small and 4 on disc: Anterior and posterior median ones fairly broad, gradually sloping toward center, subcorrugated, and latero-basal oblique, smooth on outer side; elytron with basal band and partial longitudinal streaks of tawny pubescence and most of low areas of pronotum with same; length 22-24 mm; Oahu; *Pelea*..... *N. haasi* Perk.
- 7( 5). Prothorax subparallel-sided in central portion, with very prominent anterior tubercle, subrounded postmedian tubercle, and oblique laterobasal; orange brown with pitchy median stripe, sublateral oblique stripe and lateral callous spot; elytron and femora orange-red; elytron strongly ridged basally; length 22 mm; Oahu; *Pelea*, *Metrosideros* ..... *N. bridwelli* Perk.
- Prothorax rounded at side, with moderately prominent anterior tubercle very weak postmedian tubercle, and low, narrow, oblique laterobasal; reddish pitchy with blackish postmedian tubercle, laterobasal, depressed oblique callous area and minute lateral callosity; elytron feebly ridged, testaceous with scattered tawny hairs on basal 2/3, partly in splotches; femora reddish brown with apices black; length 17 mm; Maui; *Pelea* ..... *N. swezeyi* Perk.
- 8( 1). Hind femur with a more or less elliptical or parallel-sided club .....9
- Hind femur, and usually also mid femur, swollen and hairy apically; elytra strongly narrowed posteriorly ("subg. *Callithmysus*") .....10
- 9( 8). Hind femur with a long slender club, often parallel-sided, more or less gradually thickening from base; elytra usually strongly narrowed posteriorly, usually less than 3 × as long as head and prothorax combined (*Plagithmysus* s. str.) (see also 76, 95).....12

- Hind femur with a short oval club, generally distinctly pedunculate-clavate, with club usually occupying distal 1/2 or less; elytra often subparallel-sided in basal 1/2 or more, or very gradually narrowed, usually more than 3 × as long as head and prothorax combined.....72
- 10( 8). Pronotum somewhat depressed between anterior and posterior median tubercles; elytron with spots or partly fused splotches of pale pubescence; femora partly black or white apically .....11
- Pronotum not depressed between anterior and posterior median tubercles, strongly swollen on most of disc; elytron with partial oblique buff stripe at end of 2nd 1/5, narrowly edged anteriorly with dark brown and connecting with narrow sutural stripe, also buff; hind femur orange red with slightly darker hairs distally; length 11–14 mm; Oahu; *Pipturus*...*P.* ("Call.") *koebelei* Perk.
- 11( 10). Pronotum blackish with yellow sublateral stripe; elytron reddish, darker in center, with many subequally spaced small patches of dense yellow pubescence; hind femur strongly swollen, pitchy and very hairy apically; length 9–14 mm; Oahu; *Bobeia* ("var." *hirtipes* on *Perrottetia*) ..... *P.* ("Call.") *microgaster* (Sh.)
- Pronotum reddish with considerable white pubescence within sublateral raised arcs; elytron less coarsely and densely punctured, than in *microgaster*, with irregular partly merged patches of white pubescence, concentrated on base and near middle of suture, and with some tawny pubescence between these areas, along suture; hind femur thickest well before apex, with dense white pubescence at apex; length 5–12 mm; Oahu; *Acacia koa* ..... *P.* ("Call.") *cristatus* (Sh.)
- 12( 9). Elytron with numerous small patches of white or yellow pubescence, only partly merging into stripes in some species .....13
- Elytron without scattered isolated small patches of pale pubescence, with stripes, but sometimes with stripes formed of patches .....30
- 13( 12). Elytron generally fairly uniform in color—dark or pale.....14
- Elytron pale with 2 conspicuous partial oblique bands of pitchy, with many white spots scattered mainly on pale areas; femora dark except at bases, with numerous white hairs, dense at apices; length 11–17 mm; Oahu; *Acacia koa* ..... *P.* (*P.*) *pulverulentus* (Mots.)
- 14( 13). Elytron with pale spots to a considerable extent forming

- stripes, but not entirely so.....15
- Elytron with pale spots subevenly scattered, or lacking only on limited areas.....17
- 15( 14). Elytron largely pale reddish brown with minute or faint white spots on basal portion, none on outer postmedian portion, and those along suture more or less forming a stripe; pronotum not very distinctly striped.....16
- Elytron dark brown with yellow pubescent spots of varying size, some partly merged into a postbasal area and others into a parasutural stripe commencing at end of basal  $1/3$ ; pronotum with 4 distinct yellow stripes; prothorax with rounded side, separate anterior and posterior tubercles; elytra obliquely dehiscent; hind femur slender; length 13 mm; Kauai; *Bobea*.....
- .....*P. (P.) permundus* Sharp
- 16( 15). Elytron reddish brown basally, darker brown posteriorly, with many small white spots basally, and those along suture forming a broad stripe or partly double stripe, with also a very narrow stripe along outer margin; prothorax blackish, hardly pubescent, with side feebly and evenly convex and disc with anterior and posterior median tubercles merged, hardly concave between them; elytron briefly oblique apically; hind femur slender, asperate, arched basally; length 8.5–9.5 mm; Kauai; *Acacia koa* ..... *P. (P.) aequalis* Sh.
- Elytron testaceous postbasally, reddish on remainder, with only a few small patches of white basally, and rest forming a broken stripe along suture in posterior  $2/3$ ; pronotum nearly parallel-sided with scattered white pubescence on central portion; median ridge depressed in center; a sublateral irregular weak ridge raised into a moderate tubercle posteriorly; hind femur moderately thickened, arched near base; length 10.5 mm; Maui; host unknown ..... *P. (P.) longicollis* Perk.
- 17( 14). Elytron with a fairly distinct basal or postbasal area without pale spots .....18
- Elytron with white or yellow spots generally distributed except often lacking along outer portion behind middle.....21
- 18( 17). Elytron with a postbasal oblique area without white spots .....19
- Elytron with basal  $1/4$  without spots and with white spots mostly just behind this area, and along suture posteriorly; prothorax reddish, weakly convex at side, with median ridge depressed at center and no sub-

- lateral ridge or tubercle, and with 4 slender white stripes; elytron obliquely rounded-dehiscent at sutural apex; hind femur moderately swollen, subasperate, feebly arched; length 7-11 mm; Hawaii; *Acacia koaia* ..... *P. (P.) koaiae\**
- 19( 18). Pronotum rather distinctly striped with white.....20  
Pronotum rather generally and thinly white-pubescent, with a pair of very vague stripes; elytron coarsely and not very closely punctured, but more closely rugose-punctate on unspotted postbasal area, which has scattered black hairs; hind femur fairly stout, finely asperate, with erect white hairs; length 16 mm; Kauai; *Eugenia (Syzygium)* ..... *P. (P.) concolor concolor* Sh.
- 20( 19). Elytral white spots fairly small and distinct, partly merged on side opposite unspotted area, which has brown hairs; hind femur with white hairs fewer above than in preceding; length 9-12.5 mm; Kauai; *Metrosideros* (sometimes *A. koa*) ..... *P. (P.) concolor munroi* Sh., n. st.  
Elytral white spots numerous, often close or nearly merging, partly tawny near postbasal unspotted area, which has only a few brown hairs; hind femur with shorter, more oblique hairs, some on upper side; length 8-10 mm; Kauai; *Acacia koa*...*P. (P.) concolor arachnipes* Sh., n. st.
- 21( 17). Anterior tubercle of pronotum at most barely projecting beyond anterior margin.....22  
Anterior tubercle of pronotum projecting well beyond anterior margin; prothorax pitchy, reddish at side, subevenly clothed with sparse gray pubescence; elytron coarsely and not very closely punctured, with many patches of creamy pubescence of different sizes; hind femur subfusiform, subevenly arched, with sparse subrecumbent pale hairs; hind tibia with white and brown hairs; hind tarsus with white hairs; length 15-18 mm; Hawaii; *Osteomeles, Diospyros ferrea*.....  
.....*P. (P.) davisi* Swez.
- 22( 21). Pronotum with a sublateral stripe of dense yellow to ochraceous pubescence which is broader than or nearly as broad as, median dark strip.....23  
Pronotum with a distinct or vague pale sublateral stripe which is narrower than median dark strip.....25
- 23( 22). Pronotum with median dark stripe subparallel-sided, widest near middle; elytron with over 30 isolated small spots of white or buff pubescence; elytral apex rounded-oblique dehiscent .....24

- Pronotum with median dark stripe widest well behind middle; elytron with many of pale spots merged to form irregular patches, mostly subtransverse or oblique, with a large subglabrous area behind middle and between broad sutural and narrow marginal stripe; elytral apex narrowed externally and internally, subacute; hind femur slender fusiform, arched basally, with short hairs; hind tibia arched, widest at middle; length 9.5 mm; Hawaii; host unknown...*P. (P.) elegans* Sh.
- 24( 23). Yellow sublateral pronotal stripe broader than median dark strip, covering most of upper side below sublateral discal ridge; elytron with about 35 distinct white patches, including those along suture but not the minute ones along external margin, a fairly broad glabrous stripe behind middle; hind femur gradually thickened, with fine suberect white hairs beneath; hind tibia subparallel-sided, nearly straight; length 13.4 mm; Hawaii; host unknown.....*P. (P.) decorus* Perk.
- Yellow sublateral pronotal stripe narrower than median dark strip, indented by glabrous side of sublateral discal ridge; elytron with about 45 yellowish buff pubescent patches of different shapes, besides many minute ones along outer margin and in apical 1/4, leaving a very limited subglabrous area behind middle; hind femur almost pedunculate-clavate, with only a few short oblique buff hairs beneath; hind tibia not very wide, widest at apex, feebly arched; length 10.5–14 mm; Maui; *Nicotiana glauca*.....*P. (P.) nicotianae*\*
- 25( 22). Prothorax with 2 broad distinct stripes of dense ochreous pubescence; elytron dark castaneous with over 20 white spots .....26
- Prothorax largely glabrous or sparsely pubescent at side, with at most 1 distinct yellow stripe or 2 narrow white stripes; elytron generally reddish (if dark castaneous, then less than 20 white spots on upper part of disc).....27
- 26( 25). Head with white pubescence above; prothorax with lower ochreous stripe much wider than upper one; anterior median tubercle blunt in lateral outline; preapical elytral punctures partly nearly as large as interspaces; some elytral spots 1/4 as long as elytral width; length 13.5 mm; Hawaii; *Vaccinium*, *Perrottetia*, *Rubus* ..... *P. (P.) vitticollis vitticollis* Sh.
- Head without white pubescence above; prothorax with lower ochreous stripe no wider than upper one; anterior



- median tubercle acute in lateral outline; preapical  
elytral punctures much smaller than interspaces;  
elytral spots no more than 1/8 as wide as elytron; length  
12 mm; Hawaii; *Bobeia elatior*...*P. (P.) vitticollis longulus* Giffard
- 27( 25). Elytron with over 50 white or yellow spots; side of pro-  
thorax largely glabrous or sparsely pubescent, without  
distinct stripes; pronotal tubercles very broad.....28  
Elytron with 15-25 white spots above, besides some  
minute patches of just a few hairs each; side of pro-  
thorax with 1 or 2 narrow white stripes; pronotal  
tubercles narrow .....29
- 28( 27). Prothorax with a distinct yellow stripe on each side of  
median strip, and upper side impunctate below sub-  
lateral ridge, and with a punctured and slightly pubes-  
cent strip between this area and a larger impunctate  
area on lower side; elytron rugose-punctate with most  
of yellow patches depressed; hind femur slender, en-  
tirely red; length 18 mm; *Nicotiana glauca*...*P. (P.) newelli* Sh.  
Prothorax largely clothed with sparse whitish pubescence,  
not forming distinct bands, but densest on each side of  
median strip, but with a limited glabrous impunctate  
area at side; elytron hardly rugose, densely punctured,  
with white patches hardly depressed; hind femur rather  
strongly clavate, testaceous on peduncle; length 8.5-  
17.5 mm; Oahu; *Metrosideros*, *Elaeocarpus*, *Syzygium*  
.....*P. (P.) solitarius* Sh.
- 29( 27). Head without white pubescence; prothorax red, largely  
glabrous, with only a narrow white sublateral discal  
stripe; meso- and metathorax with patches of white  
pubescence; elytron dark castaneous, sparsely punctured,  
with about 15 white patches above, irregularly spaced;  
hind femur with widely spaced minute asperities, pale  
nearly to middle and with only a few oblique hairs  
beneath; length 11.7 mm; Hawaii; host unknown.....  
..... *P. (P.) swezeyi* Perk.  
Head with white pubescence; prothorax dark red to pitchy,  
with short dark pubescence and 2 narrow white stripes  
on each side, besides white around coxal cavity; meso-  
and metathorax with patches of yellow pubescence;  
elytron red, densely punctured, with about 25 white  
patches besides small groups of a few hairs each; hind  
femur with numerous asperities and fine erect white  
hairs beneath; length 11.6 mm; Kauai; *Cryptocarya*  
*manni* ..... *P. (P.) polystictus* Perk.

- 30( 12). Elytron with pale pubescence general, scarce or formed in various patterns, but if principally in a sutural stripe, that stripe is broken, consists of spots, is vague, broad, or branches anteriorly .....31
- Elytron with pale pubescence principally concentrated in a narrow, continuous sutural stripe in about posterior  $2/3$  to  $3/4$ , almost always curving obliquely forward onto middle of disc at anterior end; sometimes this pale line almost lacking, or lacking, but its place taken by a line of contrast between dark and pale derm.....42
- 31( 30). Elytron with at least suggestion of a sutural stripe, though often vague, spotty, incomplete or branched.....32
- Elytron dark without a sutural stripe, evenly pale pubescent except on much of upper basal  $1/3$ , including an orange spot in basal  $1/5$ ; elytral disc densely and evenly punctured; elytral apex narrowly rounded; hind femur fairly stout, gradually thickened to near apex, finely asperate, arched basally, with fairly short oblique pale hairs; length of elytron 12 mm; Molokai; host unknown..... *P. (P.) fractus* Perk.
- 32( 31). Anterior pronotal tubercle projecting more or less distinctly beyond apical margin; elytral stripe of spots, or forked anteriorly .....33
- Anterior pronotal tubercle not projecting beyond apical margin; elytral stripe vague, or broadened at each end.....35
- 33( 32). Elytron with sutural stripe forking anteriorly, with fork enclosing a dark area without pale pubescence; hind femur with oblique hairs.....34
- Elytron with sutural stripe of spots, and basal  $1/4$  of disc with merging thin patches of whitish pubescence, partly bordered behind by an oblique line of denser hairs; prothorax red, with 1 distinct and 1 vague pale stripe on each side; elytral disc rugose-punctate, but much more finely so in area between the partial oblique white bands, which has some black pubescence; hind femur with fine erect white hairs beneath; length 12 mm; Kauai; *Elaeocarpus* .....*P. (P.) ignotus* Perk.
- 34( 33). Pronotum with tubercles low, but anterior one projecting forward over margin, and 2 narrow tawny pubescent stripes on side; elytron coarsely rugose-granulose and sparsely pubescent basally, with triangle in fork in sutural stripe much more finely rugose and bearing some brown hairs; an incomplete stripe between sutural and marginal stripes; length 18 mm; Kauai; host

- unknown..... *P. (P.) paludis* Perk.  
Pronotum with tubercles fairly high, with 1 narrow and 1 broad pubescent stripe on side, both white at each end and ochreous in middle, but lower (broader) stripe more extensively ochreous; elytron sparsely subrugose-punctate on glabrous and tufted areas of base, subreticulate to subasperate on densely ochreous pubescent postbasal area, and finely rugose and black-pubescent on triangle between forks of sutural stripe; area between marginal stripe and sutural stripe (with median branch) glabrous and sparsely punctured; length 12.6 mm; Kauai; host unknown.....*P. (P.) forbesi* Perk.
- 35( 32). Elytron with ground color partly dark and partly pale; head and/or pronotum pitchy black; femora clubs fairly dark brown or black.....36  
Elytron with ground color uniform, pale to darker reddish brown; head and pronotum reddish brown, rarely dark reddish brown; femora clubs fairly pale reddish brown.....39
- 36( 35). Elytron partly dark at side and with limited white pubescence .....37  
Elytron entirely pale at side from humerus to apex and pale across base; a cuneiform pitchy area near suture.....38
- 37( 36). Elytron largely very pale brown to testaceous, with 2 pitchy marks, 1st postbasal, oblique, broad at margin and suture but narrow in middle, and continued forward to scutellum along suture, 2nd elongate, tapering, discal, from middle extending into apical 1/4, pale areas with some inconspicuous small flecks of white pubescence on base, middle and along suture; hind femur subparallel-sided beyond peduncle; length 12.5–13.5 mm; Maui; *Acacia koa* ..... *P. (P.) finschi* (Harold)  
Elytron pitchy black, sometimes dark brown, with part of base, middle of outer side, and apex testaceous; apical area sometimes only slightly paler than dark ground color, but sometimes joined to midlateral pale spot; white pubescence in 3 irregular bands—basal, at middle, and apical, latter 2 usually connected by sutural stripe—white pubescence sometimes covering and sometimes fringing areas of pale derm; hind femur considerably thickened to shortly before apex; length 7–11.5 mm; Maui; *Sophora*..... *P. (P.) funebris* Sh.
- 38( 36). Elytron with a large cuneiform pitchy black area from near base to near apex, sometimes entirely thinly white-pubescent, as are sometimes also pale areas, often a

- more distinct oblique white mark just anterior to center; hind femur reddish brown to pitchy; length 8-18 mm; Oahu; *Sapindus* (= *sapindi* Perk., n. syn.)  
 ..... *P. (P.) cuneatus* Sh.
- Elytron with a limited cuneiform dark brown patch just anterior to middle of suture, reaching to middle of disc at anterior angle; elytral disc otherwise reddish yellow and weakly pubescent; hind femur blackish, testaceous basally; length 13 mm; Oahu; host unknown  
 ..... *P. (P.) albertisi* Sh.
- 39( 35). Pronotum with a fairly long and distinct sublateral ridge with side more or less vertical below it.....40
- Pronotum without a distinct long sublateral ridge.....41
- 40( 39). Pronotum with anterior tubercle quite high, narrow, and with pair of fairly broad stripes of sparse white pubescence bordering median ridge area and nearly meeting at each end; elytron with sparse white pubescence on base and fairly broad but sparse sutural stripe, which curves outward anteriorly past median line; hind femur with erect pale hairs beneath; length 11 mm; Molokai; *Metrosideros* ..... *P. (P.) aestivus* Sh.
- Pronotum with tubercles low; surface very sparsely and subevenly clothed with whitish pubescence, with only suggestion of stripe between median and sublateral ridges; elytron with sparse whitish pubescence on part of basal portion, along outer margin (fairly broad vague stripe) and along suture in posterior 2/3 (fairly broad, widening anteriorly; hind femur with only short oblique hairs; length 5.5 mm; Maui; *Rubus hawaiiensis* ..... *P. (P.) rubi* Perk.
- 41( 39). Prothorax slightly broader than long, subrounded at side, broadly convex medially on disc with only a few weak asperities on the very low tubercles; remainder of surface finely reticulate-punctate to subgranulose, pitchy brown with a narrow white stripe on each side; elytron dark reddish brown with a very incomplete, partly interrupted and partly double sutural stripe of white, and a detached patch near end of basal 1/4; hind femur with minute adpressed reddish hairs; length 12 mm; Hawaii; host unknown..... *P. (P.) kraussi*\*
- Prothorax as long as broad, subparallel-sided, but slightly wider near base, with median ridge weakly raised, a little more so at anterior end, with transverse carinae; remainder of surface subreticulate to subgranulose-

- punctate with rather general whitish buff pubescence, sparser along median strip and near side of disc, leaving a vague sublateral discal stripe; elytron pale reddish brown with rather general, but fairly thin and erratic whitish buff pubescence, a little denser along sutural strip in apical 2/3 and along outer margin; hind femur with oblique tawny hairs; length 7.5 mm; Nihoa; *Euphorbia* ..... *P. (P.) nihoa* Perk.
- 42( 30). Sutural white stripe of elytron rather broad, sometimes vague, considerably widened anteriorly .....43
- Sutural white stripe of elytron often quite narrow, usually bent obliquely toward humerus at anterior end, usually quite distinct .....44
- 43( 42). Basal 1/4 of elytron reddish pitchy with black hairs; sutural stripe broad, widened to 1/2 width of elytron anteriorly, dark area of disc widening posteriorly; hind femur pale orange red with apical 1/4 dark reddish brown; length 9.5-14.5 mm; Hawaii; *Smilax*, *Myrsine* (= *Suttonia*).....  
..... *P. (P.) giffardi* Perk.
- Extreme base and side of elytron pale testaceous with white hairs; sutural stripe of sparse white hairs, often vague, with a denser oblique white stripe near middle, and dark area of disc narrowing posteriorly; hind femur dark brown to reddish brown, pale basally; length 7-13 mm; Oahu; *Sapindus* (= *sapindi* Perk.).....  
.....*P. (P.) cuneatus* Sh.
- 44( 42). Pronotum with 6 prominent tubercles.....45
- Pronotum with usually 2 tubercles (median ridge) and a sublateral ridge on each side of disc.....46
- 45( 44). Pronotum with 5 very prominent tubercles almost in a transverse row behind middle; elytron pitchy with extreme base and a narrow humeral stripe nearly to apex, of pale brown, with postbasal oblique band and anteriorly widened sutural stripe, of tawny yellow pubescence; length 17 mm; Oahu; *Sideroxylon* (= *planchonella*) ..... *P. (P.) muiri* Perk.
- Pronotum with 2 strong median tubercles, a fairly strong postlateral one and a slightly lesser one obliquely anterior to it; elytron reddish brown with a cuneiform sutural pitchy area in posterior 3/4 bearing anteriorly bent yellowish white pubescent sutural stripe; length 16 mm; Maui; *Cheirodendron* ..... *P. (P.) cheirodendri*\*
- 46( 44). Elytral pale stripe curving gradually away from suture, or widening into a broad pubescent area anteriorly.....47

- Elytral pale stripe turning rather suddenly and obliquely away from suture anteriorly .....50
- 47( 46). Sutural pale stripe of elytron gradually or somewhat suddenly broadening anteriorly while continuing along suture .....48
- Sutural pale stripe turning gradually away from suture, while only increasing slightly in width; stripe slightly yellowish, moderately broad,  $\frac{3}{4}$  elytral length, and lying on large cuneiform dark area bordered with pale brown basally and laterally; dark and pale areas largely with sparse pale pubescence; pronotum with prominent anterior and posterior tubercles, and a moderately prominent, partly smooth, sublateral ridge; hind femur reddish, with fine oblique-suberect pale hairs; length 22 mm; Hawaii; *Myoporum* ..... *P. (P.) perkinsi* Sh.
- 48( 47). Anterior widening of sutural stripe extending more or less to base of elytron, although changing color, becoming sparsely pubescent or with gaps.....49
- Anterior widening of sutural stripe not reaching basal  $\frac{1}{4}$  of elytron, with a blackish area between it and basal pale area; median portion of elytral disc dark in posterior  $\frac{2}{3}$  and outer portion pale from apex to humerus (paler posteriorly) except for dark side of humerus; pronotum dark with 2 moderate tubercles and sublateral ridge; hind femur red with base pale and apex pitchy, and with suberect pale hairs of moderate length; length 14 mm; Hawaii; *Urera* ..... *P. (P.) sulphurescens* Sh.
- 49( 48). Sutural stripe broadening and covering most of upper surface of elytral base with thin white pubescence, over both dark and pale derm; side of elytron pale from humerus to apex, and median portion pitchy beyond basal  $\frac{1}{6}$ ; pronotum with fairly abrupt principal carinae on anterior and posterior tubercles, and distinct sublateral ridge; hind femur widest before apex, dark in apical  $\frac{1}{3}$ ; length 12 mm; Hawaii; host unknown.....  
..... *P. (P.) kohalae* Perk.
- Sutural stripe broadening and nearly reaching base, but changing to orange tawny, and with 1 large and several small subglabrous reddish brown spots; most of disc in posterior  $\frac{2}{3}$  of elytron glabrous and ochraceous; pronotum with median strip broadly raised, with almost no depression between anterior and posterior tubercles, and with weak sublateral ridge; hind femur widest near middle, pale at each end; length 13 mm;

- Hawaii; *Myrsine* (= *Suttonia*).....*P. (P.) simplicicollis* Sh.
- 50( 46). Dorsum largely reddish brown with white, gray or tawny stripes and some pitchy or blackish areas.....51
- Dorsum blackish with pale greenish gray pubescence:  
Pronotum with pair of dorsal stripes and all of side pubescent (or pale with 3 black stripes); elytron with base thinly pubescent, with sharp sutural stripe bending anteriorly at sharp angle, but meeting sparsely pubescent basal area and also a narrow median stripe in central 1/3; marginal stripe almost as distinct as sutural stripe; pronotum with broad moderate tubercles and weak sublateral ridge; hind femur black, pitchy basally, with long fine erect white hairs; length 13–17 mm; Kauai; *Pelea* ..... *P. (P.) diana* Sh.
- 51( 50). Sutural stripe of elytron continuous, only rarely indistinct (generally in greasy specimens) .....52
- Sutural stripe consisting of only partly merging spots (see bract 33); Kauai; *Elaeocarpus*.....*P. (P.) ignotus* Perk.
- 52( 51). Anterior diversions of respective sutural stripes partly enclosing a subtriangular dark area with blackish pubescence (sometimes sublongitudinal, along suture, but always adjacent to suture and anterior bend of sutural stripe, and not concave anteriorly or a dark stripe parallel to bent portion only).....53
- Anterior bent portion of sutural stripe preceded anteriorly by pale area or oblique dark area not extending along suture more than onto disc .....61
- 53( 52). Pronotum with a fairly distinct sublateral ridge, at least posteriorly .....54
- Pronotum sloping somewhat evenly from median ridge, with sublateral ridge barely evident; prothorax with median broad-oval brown area, with dirty white pubescence fairly dense on upper side, largely lacking on middle of side and sparse below; elytra with shallow common dark area in concavity of anterior bends in sutural stripes; remainder of disc pale reddish brown with sparse whitish pubescence; hind femur with abundant suberect white hairs of moderate length; length 11 mm; Kauai; *Pipturus*..... *P. (P.) sharpianus* Perk.
- 54( 53). Pronotum with median ridge fairly narrow and weak, tuberculate only anteriorly; black area anterior to sutural stripe largely limited to along suture.....55
- Pronotum with median ridge at least subtuberculate posteriorly .....58

- 55( 54). Pronotum with sublateral ridge obsolete anteriorly.....56  
 Pronotum with sublateral ridge apparent anteriorly as well as posteriorly, median ridge not extremely narrow anteriorly; pronotum and elytron reddish brown.....57
- 56( 55). Pronotum pitchy, with 4 vague white stripes; elytron pale testaceous except for anterior sutural mark, with scattered white hairs on base and rest of disc largely glabrous; hind femur pale, darker in apical 1/3, with fairly long erect pale hairs beneath; length 13.5 mm; Hawaii; *Pelea*, *Fagara* (= *Xanthoxylum*).....  
 ..... *P. (P.) bishopi bishopi* Sh.  
 Similar to preceding, but body more slender; dorsum darker, more blackish; elytron more heavily punctured; Hawaii; *Osmanthus*.....*P. (P.) bishopi gracilis* Sh.
- 57( 55). Prothorax slightly longer than broad; length 13-16 mm; Hawaii; *Pelea* ..... *P. (P.) vicinus vicinus* Sh.  
 Prothorax slightly broader than long; length 15.6 mm; Hawaii; *Pelea* .....*P. (P.) vicinus frater* Perk., n. st.
- 58( 54). Pronotum with posterior swelling of median ridge more or less tuberculate .....59  
 Pronotum with posterior swelling of median ridge very weakly raised, subhorizontal; pronotum pitchy, vaguely striped with sparse white pubescence; elytron reddish brown, slightly darker on suture and paler on external margin, with very sparse white pubescence basally and largely glabrous on remainder between sutural and marginal stripes (see brack 55).....*P. (P.) vicinus vicinus* Sh.
- 59( 58). Prothorax pitchy, with weak stripes or no stripes; common pitchy area at anterior ends of sutural stripes transverse .....60  
 Prothorax reddish, with 4 (6) pale golden stripes of dense pubescence; elytra with common pitchy area at anterior ends of sutural yellow stripes sublongitudinal; rest of disc rather heavily punctured, with sparse yellow pubescence basally and a weak median stripe on center of disc; length 13 mm; Hawaii; *Platydesma*.....  
 .....*P. (P.) platydesmae* Perk.
- 60( 59). Pronotum with median and sublateral ridges fairly broad or gradually sloped, weakly striped with white; elytra with sutural stripe broad and subtransverse anteriorly, and disc pitchy medially (see brack 47).....  
 ..... *P. (P.) sulphurescens* Sh.  
 Pronotum with median and sublateral ridges very narrow, but distinctly raised, unstriped; elytron with sutural



- stripe barely broadened at bend, strongly oblique anteriorly; disc entirely pale reddish brown except for dark area cupped in ends of sutural stripes, with a few white hairs basally and a few scattered along median line of disc near center; hind femur gradually darkened, with just a few suberect pale hairs beneath; length 8.5–16 mm; Maui; *Pelea* ..... *P. (P.) collaris* Sh.
- 61( 52). Elytron without a dark oblique stripe anteriorly adjacent to oblique anterior end of sutural stripe.....62  
Elytron with a brown or pitchy stripe anteriorly adjacent to oblique anterior end of sutural stripe.....66
- 62( 61). Entire pronotal disc appearing as if raised (or sublateral ridge prominent), with side almost vertical from sublateral ridge; pronotum red and not distinctly striped; elytron with sutural pale stripe fairly broad, not very white or very prominent .....63  
Entire pronotal disc not raised, sublateral ridge distinct but weak anteriorly; elytron with sutural stripe narrow and distinct, or posterior 3/4 of side testaceous and pronotal ridge very strongly raised.....64
- 63( 62). Pronotal disc strongly raised, subevenly convex, red with blackish pubescence, some whitish pubescence at side; elytron reddish testaceous, dull brown on posterior 1/2, with a narrow sparse white sutural stripe extending to scutellum, and considerable sparse whitish pubescence at side; hind femur dull reddish brown with very few suberect hairs; length 10–12.6 mm; Maui; *Pipturus* ..... *P. (P.) simillimus* Perk.  
Pronotal disc moderately raised, with median ridge and sublateral ridge distinct, former more or less of 2 separate tubercles, red with very sparse white pubescence on most of surface; elytron reddish with suture very narrowly darkened, and with very sparse white pubescence on base, near center, and along outer margin; hind femur pale reddish with a moderate number of erect hairs beneath; length 11–13 mm; Maui; *Metrosideros*...  
..... *P. (P.) pulvillatus* Karsch
- 64( 62). Suture white stripe distinct and side of elytron reddish to pitchy; median pronotal ridge moderately raised, with anterior and posterior tubercles separate.....65  
Suture white stripe often indistinct; entire side of elytron testaceous beyond basal 1/4; median pronotal ridge very strongly raised, with slight depression between anterior and posterior tubercles, which bear strong

- transverse or arcuate ridges; elytral base reddish testaceous, a narrow pitchy stripe parallel to sutural stripe; hind femur reddish pitchy with basal 1/3 testaceous, apex orange, and with fairly numerous suberect whitish hairs; length 8–16 mm; Hawaii; *Acacia koa*, *Myoporum* ..... *P. (P.) varians* Sh.
- 65( 64). Pronotum with moderately distinct pale stripes and without distinct transverse ridges on posterior tubercle, which is feeble; elytron finely punctured, reddish, more pitchy along sutural portion postmedially, with a patch of white pubescence beside humerus, on disc, and another at suture behind scutellum, a very narrow stripe of white along part of outer margin, and reddish pubescence or none on remainder; hind femur with only short oblique hairs; length 11–19 mm; Hawaii; *Metrosideros* ..... *P. (P.) bilineatus* Sh.
- Pronotum without distinct pale stripes and with 2 very distinct transverse ridges on posterior tubercle; elytron strongly punctured, pitchy, red at base and side, with sparse minute white hairs; length 12 mm; Lanai; ?*Metrosideros* ..... *P. (P.) lanaiensis* Sh.
- 66( 61). Elytron with sutural pale stripe fairly broad, not very white, and bent anterior end bordered anteriorly with very narrow strip of brown or pitchy; pronotum red, without stripes, with median ridge fairly broad and sublateral ridge very distinct.....67
- Elytron with sutural stripe white, quite narrow and sometimes indistinct, with anterior bent portion often somewhat broadly bordered with brown or blackish; pronotum sometimes, but not always, striped with whitish, and sublateral ridge sometimes prominent.....68
- 67( 66). Pronotum with median ridge very broad, hardly depressed in middle, with many sinuate or incomplete transverse ridges; elytron with sutural stripe bent anteriorly at a strong angle; hind femur with suberect whitish hairs beneath; hind tibia very hairy and broad; length 14.5–16 mm; Oahu; *Pipturus*.....*P. (P.) kuhnsi* Perk.
- Pronotum with median ridge only moderately broad, strongly depressed between anterior and posterior tubercles which have only 1 or 2 transverse carinae each; elytron with sutural stripe bent anteriorly at a weak angle; hind femur without suberect hairs; hind tibiae narrow and not extremely hairy; length 9–11 mm; Molokai; *Pipturus* ..... *P. (P.) molokaiensis* Perk.

- 68( 66). Elytron with a pitchy or reddish brown stripe adjacent to sutural stripe .....69  
 Elytron without a pitchy stripe external to sutural stripe, entirely testaceous brown except for narrow cuneate brown strip anterior to sutural stripe bend; pronotum dark, shiny, subglabrous, with prominent sublateral ridge; hind femur pitchy, reddish in basal 1/2, with suberect white hairs; length 6.5–19 mm; Oahu; *Sapindus* .....*P. (P.) albertisi* Sh.
- 69( 68). Elytron with distinct oblique pitchy band anterior to bend in sutural stripe; pronotum usually with slight pale stripes .....70  
 Elytron often without oblique pitchy band anterior to bend in sutural stripe; pronotum with stripes obsolete, with median ridge prominent and with a number of complete or incomplete transverse carinae; elytron very pale at side (see bract 64).....*P. (P.) varians* Sh.
- 70( 69). Pronotum with median ridge with fairly high tubercles, sublateral ridge distinct and a pair of fairly evident white stripes above; elytron with pitchy area not forming an even broad stripe.....71  
 Pronotum with median ridge fairly broad and not very strongly raised, sublateral ridge not prominent or sharp, and stripes nearly obsolete; elytron with white pubescence beside humerus and dark area forming a regular cuneiform stripe bearing sutural white stripe red, pale at base, with long erect white hairs; length 7–18 mm; Hawaii; *Sophora* (also *Fagara* (= *Xanthoxylum*), *Sapindus*?) ..... *P. (P.) darwinianus* Sh.
- 71( 70). Elytron with pitchy postbasal area extending almost to base beside humerus and there bearing white pubescence; hind femur pitchy with pale base with long erect white hairs above and beneath; length 8–15 mm; Hawaii; *Sophora* (rarely *Gouldia*).....*P. (P.) blackburni* (Sh.)  
 Elytron with pitchy postbasal area not reaching base and lacking white hairs, most of basal portion with brown hairs; hind femur red, pale basally, with erect hairs beneath only and not very long; length 13–15 mm; Hawaii; *Pipturus*, *Urera* ..... *P. (P.) lamarckianus* Sh.
- 72( 9). Hind femoral club fairly short and not very suddenly thickened; hind tibia with short hairs; hind tarsus with long white hairs (Subg. *Paraclytarus*).....73  
 Hind femoral club of variable length, usually quite suddenly thickened; hind tibia and tarsus both with short

- fine hairs (Subg. *Neoclytarlus*).....78
- 73( 72). Almost entirely reddish brown, paler on antenna and femoral petioles; dorsum largely glabrous.....74
- Dorsum with some pale pubescent marks.....76
- 74( 73). Prothorax widest near middle, with weak sublateral ridge and without a callosity at side.....75
- Prothorax widest well behind middle; sublateral ridge with a fairly strong tubercle posteriorly; middle of side with a small callosity; posterior tubercle of median ridge fairly strong; length 11 mm; Maui; *Pipturus*.....
- ..... *P. (Para.) pipturicola* (Perk.), n. comb.
- 75( 74). Pronotal tubercles fairly weak, posterior tubercle but slightly raised and fairly flat; length 10 mm; Hawaii; host unknown.....*P. (Para.) podagricus* (Perk.), n. comb.
- Pronotal tubercles fairly strong, posterior tubercle about as high as anterior tubercle, broader at top; length 10.3 mm; Oahu; *Metrosideros*.....
- .....*P. (Para.) timberlakei* (Perk.), n. comb.
- 76( 73). Elytron with 1 or 2 limited pubescent marks.....77
- Elytron with extensive pale pubescence in form of partly merged patches over much of surface except humerus, an oblique antemedian band and sublateral postmedian area, which however is divided longitudinally by a narrow stripe of pubescence; hind femur very slender with petiole a little shorter than club; length 6 mm; Kauai; *Acacia koa* (very similar to *P. (s. str.) concolor arachnipes*) ..... *P. (?s. str.) annectens* (Sh.), n. comb.
- 77( 76). Elytron with a small divided mark of scanty white hairs near middle; pronotum with a broad elevation along middle bearing 5 or 6 transverse elevations; hind femur with petiole as long as club; length 7.75 mm; Maui; *Acacia koa*.....*P. (Para.) laticollis* (Sh.), n. comb.
- Elytron with a slightly arcuate oblique gray stripe gradually diverging anteriorly from suture; pronotum with an obtuse conical tubercle anteriorly and a broad obscure elevation posteriorly; hind femur with club long and gradually swollen; length 9.5 mm; Hawaii; *Metrosideros* or *Straussia* ..... *P. (Para.) abnormis* (Sh.), n. comb.
- 78( 72). Venter and legs with short hairs, those of hind femur usually shorter than diameter of its petiole, which is usually shorter than club; club usually gradually thickened .....79
- Venter and legs usually with long fine erect hairs, usually longer than diameter of petiole of hind femur, which is

- often longer than club; club often suddenly thickened.....92
- 79( 78). Hind femur with petiole as long as, or longer than, its club.....80
- Hind femur with petiole shorter than club.....82
- 80( 79). Hind femur with petiole as long as, or very nearly as long as, its club .....81
- Hind femur with petiole a little longer than club; hind tibia fairly wide and flat, nearly as wide at middle as at apex, hind tarsus with moderately long hairs; elytron dull brown, paler on basal 1/4, with narrow basal and wider bands of gray pubescence at middle and apex, latter 2 connected by sutural stripe, all these pubescent areas with small glabrous spots or irregular lines of fused spots; pronotum with low ridge bearing 1 anterior and 2 posterior transverse carinae; length 10 mm; Oahu; host unknown...*P. (Neo.) superstes* (Zimm.), n. comb.
- 81( 80). Prothorax 2/3 as broad as elytra, finely and closely punctured, with anterior and posterior median tubercles quite distinct and not connected, latter without distinct transverse ridge; elytron dark brown but pale on base and on median portion to behind middle, with a straight sutural stripe of whitish buff pubescence; hind femur exceeding elytral apex; length 10.4 mm; Oahu; host unknown ..... *P. (Neo.) usingeri*\*
- Prothorax 4/5 as broad as elytra, partly subasperate or subgranulose, anterior and posterior median tubercles low, broad and separated by a weak depression, posterior one with 2 transverse carinae; elytron reddish to dark brown with vague bands of pale pubescence at base and middle, often fairly narrow, and with sutural stripe posteriorly from latter, but these mottled with vague glabrous spots and rest of surface mostly mottled with small pubescent patches or scattered hairs; hind femur reaching or exceeding elytral apex; length 6-12 mm; Hawaii; *Charpentiera*, *Acacia koa*.....*P. (Neo.) immundus* Sh.
- 82( 79). Prothorax somewhat obtuse to subtuberculate at side; body usually slender and somewhat depressed, more or less uniformly pale or dark brown, without bands or stripes, subglabrous above .....83
- Prothorax broadly rounded or subparallel-sided at middle of side; body often robust or cylindrical, dark or pale but usually pubescent and sometimes striped.....86
- 83( 82). Hind femur rather distinctly clavate, gradually and distinctly thickening after basal 1/3 or so; prothorax

- not tuberculate laterally .....84
- Hind femur not distinctly clavate, very gradually and feebly thickening; elytron very long, closely punctured; prothorax briefly tuberculate laterally; pronotal ridge narrow and fairly weak, depressed in middle, but with small transverse carinae; length 7.5–9 mm; Maui; *Smilax*, ? *Trematolobelia*...*P. (Neo.) smilacis* (Perk.), n. comb.
- 84( 83). Pronotum with median ridge distinctly concave between anterior and posterior tubercles; elytron reddish to pitchy .....85
- Pronotum with median ridge nearly horizontal behind the very low anterior tubercle; elytron pale; hind femur somewhat flattened, widest well before apex; hind tibia slightly flattened, but fairly narrow, subsinuate; length 7.5 mm; Oahu; *Smilax*.....
- .....*P. (Neo.) indecens indecens* (Perk.), n. comb.
- 85( 84). Pronotum closely reticulate-punctate, without complete transverse carinae on median ridge; elytron very closely punctured; hind femur nearly reaching to elytral apex, minutely asperate, dull; hind tibia arched preapically; length 8.4 mm; Molokai; *Smilax*.....
- .....*P. (Neo.) indecens kainaluensis* (Perk.), n. comb.
- Pronotum somewhat granulose, with 3 transverse carinae on median ridge; elytron sparsely punctured behind base, rather shiny; hind femur not reaching apical 1/6 of elytron, sparsely punctured and shiny; hind tibia nearly straight; length 5.8 mm; Kauai; *Metrosideros*.....
- .....*P. (Neo.) metrosideri*\*
- 86( 82). Hind femur with petiole much shorter than club; pronotum with median ridge feebly raised and with somewhat of a sublateral ridge .....87
- Hind femur with petiole not much shorter than club; pronotum with median ridge broad, distinctly raised but ill-defined because of gradual sloping to side, without sublateral ridge; elytron closely punctured, subrounded apically, with thin splotches of pale pubescence in middle; length 9.4 mm; Maui; host unknown
- .....*P. (Neo.) fugitivus* (Perk.), n. comb.
- 87( 86). Elytron generally pubescent, subglabrous, or with anteriorly broad sutural stripe; hind femur with petiole often quite short .....88
- Elytron with a narrow sutural stripe bent anteriorly as in many *Plagithmysus* s. str., and with a few white hairs basally; hind femur with petiole nearly 1/2 as long

- as club, which is gradually swollen and fairly stout; pronotum with median ridge fairly broad, anterior tubercle fairly prominent, and sublateral ridge rather strongly raised but not sharp; length 11–12.5 mm; Hawaii; *Vaccinium* ..... *P. (Neo.) atricolor* (Perk.), n. comb.
- 88( 87). Hind femur with a distinct petiole; elytron subangulate apically; prothorax subparallel-sided at middle or widest a bit behind middle, with median ridge of disc low but broad ..... 89
- Hind femur almost without petiole, flattened and gradually widened from base; elytron subrounded apically; prothorax subevenly rounded at side, with median ridge both narrow and low; dorsum pitchy, paler posteriorly, subglabrous; length 10.6 mm; Maui; host unknown..... *P. (? Neo.) yoshimotoi*\*
- 89( 88). Carinae of median pronotal ridge about 1/5 as wide as pronotum ..... 90
- Carinae of median pronotal ridge about 1/8 as wide as pronotum ..... 91
- 90( 89). Hind femur with petiole about 1/2 as long as club; dorsum pale or dark with a broad sutural stripe; pronotum more or less distinctly striped; length 4.5–9.5 mm; Oahu; *Chenopodium* ...*P. (Neo.) chenopodii* (Perk.), n. comb.
- Hind femur with petiole nearly as long as club; dorsum pale pubescent mottled with glabrous brown spots; pronotum unevenly striped; body stout; length 9–12.5 mm; Hawaii; *Chenopodium*.....*P. (Neo.) looki keanakolui*\*
- 91( 89). Hind femur with petiole about 1/2 as long as club; body fairly slender; length 5–10 mm; Hawaii; *Chenopodium* .....*P. (Neo.) looki looki* (Swezey), n. comb.
- Hind femur with petiole about 1/3 as long as club; body fairly stout; length 6–11 mm; Hawaii; *Chenopodium*.....*P. (Neo.) looki ukae*\*
- 92( 78). Venter and undersides of femora with erect pale hairs of moderate length, usually barely longer than diameter of petiole of hind femur, and sometimes scarce; petiole usually roughly as long as club.....93
- Venter and undersides of femora with long erect pale hairs, generally much longer than diameter of petiole of hind femur, usually abundant; petiole longer than club as a rule .....103
- 93( 92). Hind femur with petiole roughly as long as club.....94
- Hind femur with petiole distinctly longer than club; dorsum with pale gray pubescence, with 6 subglabrous

- spots (tubercles) on pronotum and 3 vague bands and 3 narrow stripes subglabrous on elytron; length 5–7.2 mm; Oahu; *Euphorbia* .....  
 .....*P. (Neo.) euphorbiae* (Bridwell), n. comb.
- 94( 93). Body rather strongly narrowed posteriorly; femoral clubs fairly stout; median pronotal ridge fairly strong; sublateral ridge distinct .....95  
 Body not very strongly narrowed; femoral clubs usually not very stout; median pronotum ridge often weak; sublateral ridge often weak ..... 96
- 95( 94). Dorsum largely glabrous; pronotum pitchy; elytron pale brown with a large pitchy cuneate mark on posterior 2/3 along suture; hind femoral club rather suddenly swollen; length 7.5–13 mm; Maui; *Acacia koa*...*P. (P.) koae*\*  
 Dorsum largely pale-pubescent, with median dark stripe on pronotum and elytron with base more or less pale and with a dark band each at end of 1st and 2nd thirds; hind femoral club not very suddenly swollen; length 8–13 mm; Maui; *Acacia koa*.....  
 .....*P. (Neo.) pennatus* (Sh.), n. comb.
- 96( 94). Pronotal tubercles fairly low; dorsum usually dull or with vague bands or a single distinct pale band.....97  
 Pronotal tubercles fairly high, anterior one quite erect; dorsum largely clothed with whitish pubescence marked with brown on pronotum with at least 2 tubercle-spots and on elytron with 2 equally spaced slightly oblique transverse bands, fairly narrow, and some small spots or areas on remainder, mostly at base, side and extreme apex; femoral clubs each thickest some distance from apex; length 7.5–11 mm; Hawaii; *Acacia koa*.....  
 .....*P. (Neo.) nodifer* (Sh.), n. comb.
- 97( 96). Body stout, less than  $4 \times$  as long as broad; dorsum largely pale .....98  
 Body slender, at least  $4 \times$  as long as broad; dorsum largely dark .....99
- 98( 97). Dorsum with small glabrous spots, appearing mostly pale; pronotum with sublateral ridge consisting of smooth or depressed callosity just behind middle followed by a short oblique ridge; hind femur with petiole a little shorter than club; length 9–12.5 mm; Hawaii; *Chenopodium* .....*P. (Neo.) looki keanakolui*\*  
 Dorsum with extensive glabrous areas, forming a distinct mottling; pronotum with a pair of vague discal pale stripes; elytron with humerus, a small area at suture



anterior to middle and a postmedian transverse area, besides smaller splotches, glabrous; hind femur with petiole nearly as long as club, which is gradually swollen; length 10 mm; island and host unknown.....

*P. (Neo.) pulchrior* (Perk.), n. comb.

- 99( 97). Hind femur with petiole fully as long as club or about as long as club, and club more or less suddenly swollen.....100

Hind femur with petiole not quite as long as club, club more gradually swollen; prothorax distinctly broader than long, broadly rounded at side, widest behind middle; dorsum brown, moderately pale gray pubescent, with denser pubescent band at middle and dark bands before and behind it, with other areas more mottled; length 8-8.6 mm; Maui; *Geranium*.....

.....*P. (Neo.) geranii* (Perk.), n. comb.

- 100( 99). Body just over  $4 \times$  as long as broad; hind femur with club elliptical,  $3-4 \times$  as thick as petiole.....101

Body  $4.5 \times$  as long as broad; hind femur very suddenly and strongly swollen, with club more than  $4 \times$  as thick as petiole and suddenly narrowed at apex; prothorax longer than broad, with median ridge low but bearing 3 distinct transverse carinae, 1 anterior and 2 posterior (very low), and sublateral ridge low and poorly defined; elytron long and gradually narrowed,  $1/2$  as wide just before apex as at base; length 5.65 mm; Kauai; *Acacia*, *Alphitonia*.....

.....*P. (Neo.) longipes* (Sh.), n. comb.

- 101(100). Elytron dehiscent, oblique and subangulate apically; prothorax subevenly rounded at side.....102

Elytron subevenly rounded apically; prothorax subobtusely at side; pronotum with anterior and posterior tubercles low, subequally convex, and sublateral ridge represented by a low swelling near base; dorsum dark with feeble pubescence; tibiae and femoral petioles pale; length 7.5 mm; Hawaii; *Railliardia*.....*P. (Neo.) rusticus*\*

- 102(101). Elytron gradually narrowed posteriorly, slightly dehiscent and longitudinally oblique apically, more than  $1/2$  as broad just before apex as at base; dorsum feebly pubescent, dark brown; hind tarsal segment 1 longer than remainder combined; length 7-10.8 mm; Hawaii; *Acacia decurrens*..... *P. (Neo.) decurrensae*\*

Elytron strongly narrowed in apical  $1/3$ , more narrowed externally, subtransversely oblique apically, less than  $1/2$  as broad just before apex as at base; dorsum with

- extensive sparse mottling of gray pubescence; hind tarsal segment 1 as long as remainder combined; length 7.6 mm; Hawaii; *Mezoneurum*.....  
 .....*P. (Neo.) mezoneuri* (Swezey), n. comb.  
 103( 92). Hind femur with petiole about as long as, or slightly longer than, club; dorsum usually blackish with gray pubescence .....104  
 Hind femur with petiole usually much longer than club; dorsum reddish to black, with or without gray pubescence .....108  
 104(103). Hind femur with petiole slightly longer than club.....105  
 Hind femur with petiole about as long as club, fairly stout and extending slightly beyond elytral apex in ♂, more slender and falling short of elytral apex in ♀; dorsum pitchy with 3 broad ill-defined bands of gray pubescence and 3 vague narrow subglabrous stripes, on elytron; pronotum rounded obtuse at side with tubercles fairly low; length 6.5–10 mm; Hawaii; *Acacia koaia* ..... *P. (Neo.) acaciae*\*  
 105(104). Hind femur with club not extremely sudden and stout in ♂, no more than 3 × as thick as petiole; hind femur usually not exceeding elytral apex in ♀.....106  
 Hind femur with club very sudden and stout in ♂, more than 3 × as thick as petiole, exceeding elytral apex in both sexes; prothorax subevenly rounded at side, but with a minute callosity at middle of side; pronotal tubercles low and broad; elytron closely punctured, subacute apically, largely covered with not very dense gray pubescence, with a vague incomplete postmedian band and 2 or 3 partial vague narrow stripes glabrous; length 7.4–10.5 mm; Maui; *Acacia decurrens*.....  
 ..... *P. (Neo.) wattleeae*\*  
 106(105). Hind femur reaching nearly to elytral apex, at least in ♂; elytron with about 10 punctures in an approximate row from suture to median carina at end of basal 1/3; dorsum with extensive pubescence as a rule in ♂; elytral apex rounded-subacute .....107  
 Hind femur not nearly reaching to elytral apex; elytron with about 5 punctures in an approximate row from suture to median carina at end of basal 1/3; dorsum reddish brown, largely glabrous, with incomplete median and preapical bands of grayish white pubescence on elytron; elytral apex rounded obtuse; length 6 mm; Maui; *Railliardia (raillardiae)*.....

- .....*P. (Neo.) railliardiae* (Perk.), n. comb., n. emendation
- 107(106). Prothorax subrounded at side, widest behind middle; pronotum with anterior tubercle smaller, but more strongly raised, than posterior tubercle; length 6.5–11 mm; Hawaii; *Dubautia montana*.....
- .....*P. (Neo.) dubautiae dubautiae*\*
- Prothorax subobtusate at side, sometimes feebly tuberculate, widest at middle; pronotum with tubercles subequal in height; length 4.3–9.2 mm; Hawaii; *Dubautia arborea* ..... *P. (Neo.) dubautiae arborea*\*
- 108(103). Hind femur with petiole usually over  $1.5 \times$  as long as club, at least in ♀.....109
- Hind femur with petiole less than  $1.5 \times$  as long as club, often exceeding elytral apex in ♀ as well as ♂; prothorax subrounded at side, widest near middle; dorsum largely gray pubescent, with 3 vague bands and 3 vague narrow stripes on elytron subglabrous; length 4.8–8.6 mm; Hawaii; *Diospyros* (= *Maba*).....
- .....*P. (Neo.) filipes filipes* (Sh.), n. comb.
- 109(108). Elytron at least  $4 \times$  as long as prothorax.....110
- Elytron distinctly less than  $4 \times$  as long as prothorax.....112
- 110(109). Dorsum dark with bands or stripes of gray pubescence.....111
- Dorsum pale: Reddish on pronotum and femoral clubs, testaceous on elytron which sometimes has 2 or 3 vague and incomplete bands of whitish pubescence; pronotum rarely with faint stripes of pale pubescence, with sublateral ridge arcuate, usually distinctly raised near base; length 5.5–6 mm; Maui; *Acacia koa*.....
- .....*P. (Neo.) modestus* (Sh.), n. comb.
- 111(110). Pronotum with tubercles of median ridge small but prominently raised; sublateral ridge of pronotum subtuberculate posteriorly; elytron reddish to dark brown with 4 vague broad bands of gray pubescence, and only suggestions of narrow stripes; length 4.4–8.5 mm; Kauai; *Acacia koa* ..... *P. (Neo.) obscurus* (Sh.), n. comb.
- Pronotum with median ridge very low, somewhat depressed near center; sublateral ridge arcuate, depressed at middle, more strongly raised behind, and bearing adpressed black hairs; elytron with extensive pubescence with some sparse or subglabrous areas, but without distinct bands, but with a fairly continuous submedian glabrous or black pubescent stripe which starts on humerus; length 9.5–12.5 mm; Hawaii; *Dodonaea*.....
- .....*P. (Neo.) dodonaeae* (Swezey), n. comb.

- 112(109). Venter and legs with dense and long white erect hairs.....113  
 Venter and legs with hairs usually sparse and rarely very long .....114
- 113(112). Dorsum pitchy, with femoral petioles testaceous; pronotal ridge moderately raised before (1 carina) and behind (2 carinae, close), depressed between, subtuberculate at base of sublateral ridge; elytron with 2 very vague bands of denser pubescence and 3 narrow stripes subglabrous; ♀ glabrous; length 7.5–9 mm; Hawaii; *Sophora* .....*P. (Neo.) filipes sophorae*\*
- Dorsum usually largely reddish, with femoral petioles reddish or slightly paler; pronotal ridge sometimes with 4 subequally spaced carinae, 2nd often lacking or feeble; elytron with 2–4 bands of gray pubescence; length 6.8–8 mm; Hawaii; *Acacia koa*.....*P. (Neo.) debilis* (Sh.), n. comb.
- 114(112). Prothorax widest a little behind middle; dorsum reddish brown .....115  
 Prothorax widest at middle, subobtuse at side; dorsum sometimes pitchy .....116
- 115(114). Dorsum with rather little pubescence, with 3 well separated pale bands on elytron; pronotum with tubercles feebly raised, and sublateral ridge forming an oblique ridge or tubercle posteriorly; length 5.6–6.5 mm; Hawaii; *Acacia koa*.....*P. (Neo.) claviger* (Sh.), n. comb.
- Dorsum extensively pubescent with 3 glabrous bands on elytron; pronotum with pubescence brownish on raised area, sometimes with suggestion of 3 stripes or 6 spots; median tubercles small but distinctly raised; sublateral ridge raised at each end; length 4.5–6.4 mm; Oahu; *Acacia koa*.....*P. (Neo.) ultimus* (Sh.), n. comb.
- 116(114). Dorsum pitchy, extensively pubescent with bands and stripes; pronotum sometimes vaguely striped, but rarely appearing spotted .....117  
 Dorsum reddish brown with largely whitish buff pubescence in 4 bands on elytron; pronotum with pubescence brown on tubercles, usually forming 6 spots, sometimes 3 stripes; median tubercles small and low, with 1 carina anteriorly and 2 (not very close) posteriorly; sublateral ridge somewhat raised anteriorly and a little more so posteriorly; length 4.2–6.2 mm; Oahu; *Acacia koa*.....*P. (Neo.) fragilis* (Sh.), n. comb.
- 117(116). Tibiae and tarsi extremely slender; pronotum with sublateral ridge more or less continuous; elytron with

| Hosts   | Kauai  | Oahu   | Molokai | Maui  | Hawaii  |
|---|--|--|---------|---|---|
| <i>Acacia koa</i><br>(koa)                            | <i>P. (P.) concolor</i><br><i>arachnipes</i> Sh. <sup>4</sup><br>(1896:274) V.<br>1895 | <i>P. (P.) cristatus</i> (Sh.)<br>(1878:207)<br>Waianae &<br>Koolau Ranges |         | <i>P. (P.) finschi</i><br>(Harold) (1880:<br>166)   | <i>P. (P.) varians</i> Sh.<br>(1896:245)<br><i>P. (N.) debilis</i> (Sh.)<br>(1900:99)   |
|   | <i>P. (P.) aequalis</i> Sh.<br>(1896:273)<br>(1896:273)                                | <i>P. (P.) pulverulentus</i><br>(Mots.) (1845:85)                          |         | <i>P. (P.) koae</i> *<br><i>P. (Paraclytarlus)</i><br><i>laticollis</i> (Sh.)<br>(1900:101) | <i>P. (N.) claviger</i> (Sh.)<br>(1900:101)<br><i>P. (N.) nodifer</i> (Sh.)<br>(1900:102)   |
|   | <i>P. (P.) annectens</i> (Sh.)<br>(1900:104)   | <i>P. (N.) fragilis</i> (Sh.)<br>(1881:534)                                |         | <i>P. (N.) pennatus</i> (Sh.)<br><i>P. (N.) pennatus</i> (Sh.)<br>(1881:532)                |   |
|   | <i>P. (N.) obscurus</i> (Sh.)<br>(1900:100)  |  |         | <i>P. (N.) modestus</i> (Sh.)<br>(1879:104)   |   |
| Fam: Leguminosae                                      | <i>P. (N.) longipes</i> (Sh.)<br>(1900:103)  |  |         |   |   |
| <i>Acacia koaia</i><br>(koaia, koa, oha)              |  |  |         |   | <i>P. (P.) koaiae</i> * @<br>Kawaihae Uka II.<br>1952<br><i>P. (N.) nodifer</i> (Sh.)<br>ex dead twigs, II.<br>1952<br><i>P. (N.) acaciae</i> *   |
| Fam: Leguminosae                                      |  |  |         |   |   |
| <i>Acacia decurrens</i><br>(black wattle)<br>(exotic) | <i>P. (P.) concolor munroi</i><br>Sharp ex host @<br>Kumuweia, 1100<br>m. 13 June 1969 |  |         | <i>P. (N.) wattilea</i> *<br>ex dead branches   | <i>P. (N.) nodifer</i> Sh.<br>ex dead & dying<br>branches,<br>Peacock's pasture,<br>Kamuela, 900 m.<br><i>P. (N.) claviger</i> (Sh.)<br><i>P. (N.) decurrensae</i> *<br>(All from same<br>locality, VII.<br>1952) |
| Fam: Leguminosae                                      |  |  |         |   |   |

<sup>4</sup>*P.* stands for *Plagithmysus*; *N.* stands for *Neoclytarlus*; Ex = reared.

\*Described as new in this paper.

| Hosts   | Kauai   | Oahu  | Molokai | Maui   | Hawaii  |
|---|---|---|---------|--|---|
| <i>Alphitonia excelsa</i><br>(Kauwila or<br>Kauila)<br>Fam: Rhamnaceae                        | <i>P. (N.) longipes</i> (Sh.)<br>(1900:103) ex dead<br>twigs & branches<br>@ Halemanu |   |         |  |   |
| <i>Argyroxiphium<br/>sandwicense</i><br>(Ahinahina)<br>"silversword"<br>Fam: Compositae       |   |   |         | <i>Aeschrithmysus terryi</i><br>Perk. (1929:261)<br>ex stems of blossoming<br>silversword<br>in Haleakala Crater |   |
| <i>Bobeia elatior</i><br>(ahakea)   |   | <i>P. (Callithymys)</i><br><i>microgaster</i> (Sh.)<br>(1879:103)<br>ex dying trees,<br>Waikane Valley &<br>Pupukea |         |  | <i>P. (P.) vitticollis</i><br><i>longulus</i> Sh. (1896:<br>240)<br>@ Puna and Kilauea  |
| <i>B. mannii</i><br>(akupa)<br>Fam: Rubiaceae   | <i>P. (P.) permundus</i> Sh.<br>(1900:105)  |   |         |  |   |
| <i>Charpentiera</i> spp.<br>(papala)<br>Fam: Amaranthaceae                                    |   |   |         |  | <i>P. (N.) immundus</i> Sh.<br>(1910:646)<br>ex branches @<br>Kona.   |
| <i>Cheirodendron<br/>gaudichandi</i><br>(olapa)<br>Fam: Araliaceae                            |   |   |         | <i>P. cheirodendri</i> *   |   |
| <i>Chenopodium oahuense</i><br>(aweoweo)<br><i>Chenopodium</i> sp.<br><br>Fam: Chenopodiaceae |   | <i>P. (N.) chenopodii</i><br>(Perk.) (1938:59)<br>ex dying plant,<br>Palikea, Waianae<br>Mts                        |         |  | <i>P. (N.) lookii</i><br>(Swezey) (1947:<br>101)<br>ex dying stems<br>@ Pohakulua<br><i>P. (N.) looki ukae</i> *<br>ex <i>Chen.</i> sp.<br><i>P. (N.) looki</i><br><i>keanakolui</i> * ex<br><i>Chen.</i> sp. |

| Hosts  | Kauai  | Oahu | Molokai | Maui   | Hawaii   |
|--|--|------|---------|--|--|
| <i>Cryptocarya mannii</i><br>"holio"<br>Fam: Lauraceae                                     | <i>Plagithmysus</i> (P.)<br><i>polystictus</i> Perkins<br>@ Kumuweia |      |         |  |  |
| <i>Diospyros ferrea</i><br>(lama)<br><br>Fam: Ebenaceae                                    |  |      |         |  | <i>P. (P.) davisi</i> Swezey<br>(1946:621) ex trunk<br>@ Puuwaawaa, N.<br>Kona, 600 m.<br><i>P. (N.) filipes</i> (Sh.)<br>(B & S 1885:196)<br>ex dead tree @<br>Puuwaawaa, N.<br>Kona  |
| <i>Dodonaea viscosa</i> var.<br><i>spathulata</i> (aalii)<br><br>Fam: Sapindaceae          |  |      |         |  | <i>P. (N.) dodonaeae</i><br>(Swezey) (1946:<br>621) ex branches<br>and boles, M.L.T.<br>Trail, 1700–<br>2000 m.<br>Exp. Plot # 7,<br>Poikahii, Mt.<br>Hualalai, 1830 m.,<br>12 Feb. 1969; Hot<br>Dog Paddock,<br>Kahuamoa, Kona,<br>1292 m., 30 Jul.<br>1969 |
| <i>Dubautia</i> spp.<br>(incl. <i>Railliardia</i><br>spp.) (naenae)<br><br>Fam: Compositae |  |      |         | <i>Aeschrithmysus swezeyi</i><br>Perk. (1929:262)<br><i>Aeschr. dubautianus</i> *<br><i>P. (N.) railliardiae</i><br>(Perk.) (1931:416)<br>ex <i>R. ciliolata</i> ,<br>Haleakala summit<br>17.VI.1927 | <i>P. (N.) d. dubautiae</i> *<br>ex dead twigs and<br>branches of <i>D.</i><br><i>montana</i><br><i>P. (N.) d. arboreae</i> *<br>ex <i>D. arborea</i><br><i>P. (N.) rusticus</i> *   |

| Hosts   | Kauai  | Oahu   | Molokai  | Maui   | Hawaii   |
|---|--|--|--|--|--|
| <i>Elaeocarpus bifidus</i><br>(kalia)<br><br>Fam: Tiliaceae                       | <i>P. (P.)</i> sp. (2 larvae)<br>ex host @ Makaha<br>Ridge 1100 m. 25<br>July 1969   | <i>P. (P.) solitarius</i> Sh.<br>(1896:241) ex<br>branches Mt.<br>Tantalus &<br>Haleauau Valley  |  |  |  |
| <i>*Euphorbia</i> spp.<br>(akoko) "koko"<br><br>Fam: Euphorbiaceae                |  | <i>P. (N.) euphorbiae</i><br>(Bridwell) (1920:<br>323) ex dying<br>stems of plants<br>growing midst<br><i>Prosopis</i> , Ewa<br>Coral Plain  |  |  |  |
| <i>Fagara</i> (= <i>Zanthoxylum</i> )<br>spp. (a'e or hea'e)<br><br>Fam: Rutaceae |  |  |  |  | <i>P. (P.) bishopi</i> Sh.<br>(1896:242) ex <i>F.</i><br><i>dipetalum</i><br><i>geminicarpum</i> @<br>Kipuka Puauulu,<br>Kilauea   |
| <i>Geranium tridens</i><br>(hinahina)<br><br>Fam: Geraniaceae                     |  |  |  | <i>P. (N.) geranii</i> (Perk.)<br>(1935:417) ex<br>dead stems in<br>small gulch near<br>Puu Niania at<br>1800 m., windward<br>slope of Haleakala |  |
| <i>Metrosideros collina</i><br><i>polymorpha</i><br>(ohia)                        | <i>P. (P.) c. concolor</i> Sh.<br>(1896:241) ex<br>"ohia" by<br>Swezey @<br>Halemanu<br><br><i>P. (P.) concolor munroi</i><br>Sh. (1900:112) on<br><i>Metrosideros</i> at<br>Kokee | <i>P. (P.) solitarius</i> Sh.<br>(1896:241) ex<br><i>Metrosideros</i> in<br>Waianae Mts. &<br>Mt. Tantalus<br><br><i>P. (Paraclytarhus)</i><br><i>timberlakei</i> (Perk.)<br>(1927:480) on host<br>@ Mt. Olympus | <i>P. (P.) aestivus</i> Sh.<br>(1896:272)<br>collected on host<br>by Perkins<br><i>Megopis reflexa</i><br><br>LANAI<br><br><i>P. (P.) lanaiensis</i> Sh. | <i>P. (P.) pulvillatus</i><br>Karsch (1881:9)<br>on "ohia" by<br>Perkins <i>Megopis</i><br><i>reflexa</i>  | <i>P. (P.) bilineatus</i> Sh.<br>(1896:243) ex<br>dying trees (trunks<br>& branches) in<br>Chain of Craters<br>region, National<br>Park, Kohala<br>(Forest Reserve,<br>1917) |



| Hosts  | Kauai  | Oahu  | Molokai   | Maui  | Hawaii   |
|--|--|---|---|---|--|
|  | <i>P. (N.) metrosideri</i> *<br><i>Megopis (Aegosoma)</i><br><i>reflexa</i> (Karsch)<br>(1881:7)   | <i>Megopis reflexa</i>  | (1896:244) host<br>not determined<br>but probably<br>"ohia" |   | <i>P. (N.) abnormis</i> (Sh.)<br>(1900:102) coll.<br>@ Olaa on ohia<br><i>Megopis reflexa</i>                                |
| Fam: Myrtaceae   |  |   | <i>Megopis reflexa</i>                                      |   |  |
| <i>Mezoneurum kauaiense</i><br>(uhiuhi)                |  |   |   |   | <i>P. (N.) mezoneuri</i><br>(Swezey) (1946:<br>623) ex dead<br>branches nr<br>Halepiula, N.<br>Kona                          |
| Fam: Leguminosae                                       |  |   |   |   |  |
| <i>Myoporum sandwicense</i><br>(naio)                  |  |   |   |   | <i>P. (P.) perkinsi</i> Sh.<br>(1896:244) ex<br>dying trees @<br>Kipuka Puaulu,<br>Puu Oo trail,<br>Kilauea & Nauhi<br>Gulch |
| Fam: Myoporaceae                                       |  |   |   |   |  |
| <i>Nicotiana glauca</i><br>(tree tobacco)<br>(exotic)  |  |   |   | <i>P. (P.) nicotianae</i> *<br>ex branches @ 900<br>m., S. slope,<br>Haleakala, 5:III;<br>also @ Auwahi |  |
| Fam: Solanaceae  |  |   |   |   |  |
| <i>Osteomeles</i><br><i>anthyllidifolia</i><br>(uulei) |  |   |   |   | <i>P. (P.) davisii</i> Sw. (1946:<br>621) ex dead<br>branches @<br>Puuwaawaa (nr<br>Halepiula) 609 m.                        |
| Fam: Rosaceae  |  |   |   |   |  |
| <i>Pelea</i> spp.<br>(alani)                           | <i>P. (P.) diana</i> Sh.<br>(1900:107) ex<br>dying trees, larvae<br>under bark,<br>pupate in wood. | <i>Nesithmysus brid-</i><br><i>welli</i> Perk. (1920:<br>343) ex <i>Pelea</i><br><i>sandwicensis</i> & <i>P.</i><br><i>clusiaefolia</i> , Mt. |   | <i>Nesithmysus forbesi</i><br>Perk. (1921:503)<br>ex <i>Pelea</i> sp. @<br>Kula pipeline,<br>Olinda     | <i>P. (P.) bishopi</i> Sh.<br>(1896:242) ex<br><i>Pelea cinerea</i> , <i>P.</i><br><i>zahlbruckneri</i> @<br>Kilauea         |

\**P. (P.) nihoa* Perkins ex *Euphorbia* sp., Nihoa.

| Hosts   | Kauai   | Oahu   | Molokai   | Mauai   | Hawaii   |
|---|---|--|---|---|--|
|   |   | Kaala, Kahana<br>Summit & Waipio<br>Ridge<br><i>Nes. haasii</i> Perk. ex<br><i>P. sp.</i> @ Kahana<br>Summit   |   | <i>Nes. swezeyi</i> Perk.<br>(1927:485) ex<br><i>Pelea</i> sp. Kula<br>pipeline, Olinda<br><i>P. (P.) collaris</i> Sh.<br>(1900:107) ex<br>dying trees, larvae<br>under bark,<br>pupate in wood | <i>P. (P.) vicinus</i> Sh.<br>(1896:243) ex<br>dying trees; larvae<br>under bark,<br>pupate in wood                                    |
| Fam: Rutaceae   |   |  |   |   |  |
| <i>Perrottetia<br/>sandwicensis</i><br>(olomea)   |   | <i>P. (Callithymus)</i><br><i>microgaster hirtipes</i><br>(Sh.) (1900:113)<br>ex fallen tree,<br>Cooke Trail,<br>Nuuanu  |   |   | <i>P. (P.) vitticollis</i> Sh.<br>(1896:240) ex<br>dying trees<br>near Puu Oo<br>Trail, Kilauea  |
| Fam: Celastraceae   |   |  |   |   |  |
| <i>Pipturus</i> spp.<br>(mamake)  | <i>P. (P.) sharpianus</i><br>Perk. (1927:475)<br>ex trunk &<br>branches @<br>Kumuweia<br><i>Parandra puncticeps</i><br>Sh. (1878:202) ex<br>trunk-larvae &<br>pupae | <i>P. (P.) kuhnsi</i> Perk.<br>(1916:248) ex<br>branches, Mt.<br>Tantalus, Haleauau<br>Valley<br><i>P. (Callithymus)</i><br><i>koebeli</i> (Perk.)<br>(1908:210) ex<br>trunks & branches<br>@ Mt. Tantalus,<br>Haleauau Valley | <i>P. (P.) molokaiensis</i><br>(1927:475) ex<br>trunks & branches,<br>Kamiloloa | <i>P. (P.) simillimus</i><br>Perk. (1931:415) ex<br>trunk & branches<br>@ Olinda<br><i>P. (Paraclyturus)</i><br><i>pipturicola</i> (Perk.)<br>(1927:481) ex<br>trunks & branches,<br>Kailua     | <i>P. (P.) lamarckianus</i><br>Sh. (1900:110) ex<br>trunk & branches<br>@ Paauilo, upper<br>Hamakua ditch<br>trail, Kilauea,<br>Hawaii |
| Fam: Urticaceae   |   |  |   |   |  |
| <i>Pouteria</i><br>(= <i>Planchonella</i> )<br>(= <i>Sideroxylon</i> )<br><i>sandwicensis</i><br>(aulu; Kaulu)<br>ala'a (Oahu)<br>Fam: Sapotaceae | <i>P. (P.) concolor</i><br><i>munroi</i> Sh. (1900:<br>112) ex trunks @<br>Kumuweia   | <i>P. (P.) muiri</i> Perk.<br>(1927:476) ex<br>trunks @ Haleauau<br>& Mohikea<br>Valleys, Waianae<br>Mts.  |   |   |  |

| Hosts  | Kauai | Oahu  | Molokai | Maui   | Hawaii   |
|--|-------|---|---------|--|--|
| <i>Platydesma campanulata</i><br>(pilo kea)              |       |   |         |  | <i>P. (P.) platydesmae</i><br>Perk. (1920:345)<br>ex live tree in<br>forest nr Glenwood  |
| Fam: Rutaceae  |       |   |         |  |  |
| <i>Rubus hawaiiensis</i><br>(akala)                      |       |   |         | <i>P. (P.) rubi</i> Perk.<br>(1931:415) ex<br>canes @ Olinda | <i>P. (P.) vitticollis</i> Sh.<br>(1896:240) ex<br>canes in Kohala<br>Mts; ex canes @<br>Kilauea & larvae<br>found in stems @<br>Nauhi Gulch but<br>not reared       |
| Fam: Rosaceae  |       |   |         |  |  |
| <i>Santalum</i> sp.<br>(iliahī,<br>sandalwood)           |       |   |         |  | <i>P. (P.)</i> n. sp. @<br>Sherwood Green-<br>well's Ranch,<br>Kona, 1800 m<br>(larvae only); 1<br>larva @ 1929 m,<br>11 Feb. 1969.<br>Adult emerged 31<br>Mar. 1969 |
| Fam: Santalaceae   |       |   |         |  |  |
| <i>Sapindus oahuensis</i><br>(aulu, kaulu or<br>lonomea) |       | <i>P. (P.) cuneatus</i> Sh.<br>(1896:241) Palikea,<br>Niu Ridge &<br>Papaia Valley; as<br><i>P. sapindi</i> Perk.<br>(1933:265) (syn.)<br>at Niu Ridge<br><i>P. (P.) albertisi</i> Sharp<br>(1897:12) Halona<br>Valley, Waianae<br>Mts., 1954 |         |  | <i>P. (P.) darwinianus</i><br>Sh. (1896:271) on<br><i>S. saponaria</i><br>(mane) @<br>Kipuka Puauulu<br>(Bird Park)  |
| Fam: Sapindaceae   |       |   |         |  |  |

| Hosts   | Kauai   | Oahu   | Molokai  | Maui   | Hawaii   |
|---|---|--|--|--|--|
| <i>Sideroxylon</i> (see<br><i>Planchonella</i> )  |   |  |  |  |  |
| <i>Smilax</i> spp.<br>( <i>melastomifolia</i> &<br><i>sandwicensis</i> )<br>(ulihiihi; uhi) |   | <i>P. (N.) indecens</i><br>(Perk.) (1920:346)<br>ex stems @<br>Kahana, Waipio<br>Ridge & Mt.<br>Kaala    | <i>P. (N.) indecens</i><br><i>kainaluensis</i> (Perk.)<br>(1931:418) ex<br>stems Kainalu | <i>P. (N.) smilacis</i><br>(Perk.) (1927:484)<br>ex stems @<br>Waikamoi  | <i>P. (P.) giffardi</i> Perk.<br>(1907:96) ex stems<br>on Sandlewood<br>Trail, Kilauea   |
| Fam: Liliaceae  |   |  |  |  |  |
| <i>Sophora chrysophylla</i><br><br>(mamani)   |   |  |  | <i>P. (P.) funebris</i> Sharp<br>(1896:273) @<br>Olinda Forest &<br>South slope,<br>Haleakala<br><i>P. (N.) mediocris</i> (Sh.)<br>(1900:99) ex<br>branches @<br>Haleakala | <i>P. (P.) blackburni</i><br>(Sh.) (1885:195)<br>ex trunks and<br>branches @ Nauhi,<br>2400 m, M. Kea,<br>Pohakuloa,<br>Puuwaawaa, N.<br>Kona & Kipuka<br>Nene, H. N. Park<br><i>P. (P.) darwinianus</i><br>Sh. (1896:271) @<br>Huehue, Kona,<br>Kau & Kilauea<br><i>P. (N.) filipes</i><br><i>sophorae</i> * @<br>Pohakuloa,<br>Kipuka Nene |
| Fam: Leguminosae  |   |  |  |  |  |
| <i>Syzygium sandwicensis</i><br>(ohia ha)   | <i>P. (P.) c. concolor</i> Sh.<br>(1896:241) ex<br><i>Syzygium</i> @ Kokee<br>& Kaholuamanu | <i>P. (P.) solitarius</i> Sh.<br>(1896:241) ex host<br>on Mt. Tantalus,<br>Nuuanu, Kawailoa<br>& Pupukea |  |  |  |
| Fam: Myrtaceae  |   |  |  |  |  |

| Hosts                                | Kauai | Oahu | Molokai | Maui | Hawaii   |
|--------------------------------------|-------|------|---------|------|--|
| <i>Urera sandwicensis</i><br>(opuhe) |       |      |         |      | <i>P. (P.) sulphurescens</i><br>Sh. (1896:271) ex<br>host @ Kilauea<br><i>P. (P.) lamarckianus</i><br>coll. on host but<br>prob. specific to<br><i>Pipturus</i>  |
| Fam: Urticaceae                      |       |      |         |      |  |
| <i>Vaccinium</i> spp.                |       |      |         |      | <i>P. (P.) vitticulis</i> Sh.<br>(1896:240) ex <i>V.</i><br><i>calycinium</i> @<br>Byron Ledge &<br>behind Old Volcano<br>House, Kilauea<br><i>P. (N.) atricolor</i><br>(Perk.) (1933:266)<br>ex <i>V. peleanum</i> @<br>2600 m, Nauhi<br>Gulch; also 2050 m,<br>on M. L. T. Trail |
| Fam: Vacciniaceae                    |       |      |         |      |  |
| <i>Zanthoxylum</i> (see<br>Fagara)   |       |      |         |      |  |

- both bands and stripes; length 4.6–8.5 mm; Hawaii; *Maba (Diospyros)*.....*P. (Neo.) filipes filipes* (Sh.), n. comb.
- Tibiae and tarsi somewhat flattened, though slender; pronotum with usually an anterior and posterior raised point on sublateral ridge; elytron more or less banded, but rarely striped; length 4.6–6 mm; Maui; *Sophora chrysophylla* ..... *P. (Neo.) mediocris* (Sh.), n. comb.

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