THE AMPAGIOID WEEVILS OF SOUTHEASTERN POLYNESIA

(Coleoptera, Curculionidae)

By

ELWOOD C. ZIMMERMAN

BERNICE P. BISHOP MUSEUM

OCCASIONAL PAPERS

VOLUME XII, NUMBER 10

HONOLULU, HAWAII

PUBLISHED BY THE MUSEUM

September 7, 1936

THE AMPAGIOID WEEVILS OF SOUTHEASTERN POLYNESIA[1] [2]

(Coleoptera, Curculionidae)

By

ELWOOD C. ZIMMERMAN

INTRODUCTION

This paper treats of a systematically difficult group of weevils belonging to the subfamily Cryptorrhynchinae. It includes two genera, containing 25 species and 1 subspecies. One of the genera and all the species are described for the first time. Of these, 19 species and 1 subspecies belong to the genus *Ampagia* Pascoe, and 6 species represent a new genus which I have called *Ampagioides*. *Ampagia* is an old Australasian genus that has used islands as stepping stones to spread itself more than a third the distance around the earth from the Malay Peninsula in the west to the Mangarevan Islands, in Polynesia, 9,000 miles to the east. *Ampagioides,* an offshoot of *Ampagia,* is confined to Rapa Island, Tubuai, and Rurutu in the Austral Islands, and to Tahiti in the Society Islands, so far as is now known. I found both genera represented on Tahiti only; on the other islands only one or the other of the genera was found. None of the species inhabits more than one island. Heretofore no ampagioid weevils have been recorded from east of Samoa.

The weevils are not abundant in the forests and are usually collected singly. It is for these reasons that I have many unique specimens in the collection before me. Many of the specimens are greasy when collected and have the color pattern somewhat obscured. Such individuals should be cleaned by a hot water bath before being examined. In old, worn specimens the scaling is paler than in fresh examples.

Measurements of the specimens were made with an eye-piece micrometer. The elytra were measured from the side, and the total length of the specimens is given from the anterior margin of the

[1] Rhynchophora of southeastern Polynesia Publication 3.

[2] Mangarevan Expedition Publication 7.

pronotum to the apex of the elytra measured with the insect on its side. The drawings were all made by the aid of camera lucida outlines.

The types of all the species are stored in Bernice P. Bishop Museum. Of the specimens studied, 13 were collected by the Pacific Entomological Survey and 43 by the Mangarevan Expedition.

KEY TO THE GENERA

A. Hind femora expanded, very broad, the hind angle more or less precipitous (fig. 4, a-r); first ventrite distinctly overhanging ventrite 2 (fig. 1, a), and with an impressed convergent line from the coxae to the middle of the posterior margin bounding a median plate-like area (fig. 1, h and i); ventrite 2 very steep or nearly perpendicular in middle (fig. 1, a).....**Ampagia** Pascoe

B. Hind femora never expanded, not broad, the hind angle not precipitous (fig. 4, s-u, w-y); first ventrite not overhanging 2 and without an impressed line bounding a median plate (fig. 1, b), ventrite 2 not very steep or nearly perpendicular in the middle (fig. 1, b)....**Ampagioides** (page 27).

Genus **AMPAGIA** Pascoe

Ampagia Pascoe, Ent. Soc. London, Trans., pp. 208-209, 1870.

Genotype: *Ampagia erinacea* Pascoe.

This genus is allied to *Idotasia* Pascoe (1872), and *Trigonopterus* Fauvel (1862). The body is very convex, elliptical, densely clothed with scales above. Antennae with the first two funicular segments elongate, the first longer than the second, segments 3-7 subequal. Prothorax broader than long, rather subconical. Scutellum distinct, more or less triangular, densely pubescent. Femora edentate, grooved for the reception of the tibiae, front femora somewhat angulate near the base (fig. 1, c), posterior femora dilated, very broad, the hind angle usually quite pecipitous. Mesosternal receptacle deep, cavernous, the intercoxal process projecting far below the level of the sternum—to a plane below the coxae; metasternum about one-half as long as the first ventrite. Ventrite one on a lower plane than the other ventrites, overhanging two, with a distinct, median area bounded by an impressed line from the coxae to the apex at the middle; ventrite two very steep in the middle, often nearly vertical.

Lea records two species from Australia and two from Lord Howe Island that have wings capable of being used for flight. All the species described herein evidently have degenerate wings that could not be used for flight (fig. 1, e). The elytra are closely applied to

the body and must be broken off if the wings are to be examined. Lea found that on the winged species the clothing usually consisted of scales only, whereas the flightless species had both scales and setae. All the species described in this paper have well developed setae among the scales.

The sexes may easily be distinguished as follows: in the male the rostrum is very coarsely punctured throughout; the median plate of the first ventrite is flattened or distinctly concave; the rostrum of the female is rather sparsely set with small punctures, shining, and not coarsely punctate except at the base and the median plate of the first ventrite is convex. In the specimens before me, the males have the intercoxal process of the mesosternum wider than that of the females.

This genus is distinct from all the other genera of southeastern Polynesia except its ally *Ampagioides* from which it can easily be distinguished by the characters given in the synoptic table. When disturbed these weevils fold their beaks into their pectoral canals and draw up their legs so tightly that they much resemble seeds and are almost impossible to retrieve if dropped among the litter about the base of a plant. When beaten from their host plants they remain immobile for some time, and it takes a keen and practiced eye to pick them from the debris in the beating sheet before they unfold their "armour" and begin to crawl about.

All the specimens described herein were taken by beating dead branches of shrubs and trees. Lea has said that some of the species are found "under bark and on the foliage of shrubs."

For the study of the genus *Ampagia* Pascoe west of Samoa, the student is referred to "Notes on the Coleopterous Genus Ampagia (Curculionidae) With Descriptions of New Species," Lea, A. M., Ent. Soc. London, Trans., vol. 77, pp. 185-194, pl. 16, 1929, which is the only comprehensive work on the genus as a whole.

Check List

Malaya

1. **Ampagia sordida** Lea.
   Ampagia sordida Lea: Ent. Soc. London, Trans., vol. 77, p. 194, pl. 16, fig. 20, 1929. Malay Peninsula: Fraser's Hill.

Australia

2. **Ampagia erinacea** Pascoe.
   Ampagia erinacea Pascoe: Ent. Soc. London, Trans., p. 209, pl. 5, fig. 1, 1870. West Australia.

3. **Ampagia alata** Lea.
   Ampagia alata Lea: Linn. Soc. N. S. Wales, Proc., vol. 37, p. 605, 1912. Queensland, New South Wales, Victoria.

4. **Ampagia nigrinasus** (Chevrolat).
   Coptomerus nigrinasus Chevrolat: Soc. Ent. France, Ann., ser. 6, vol. 1, p. LXIX, 1881. Queensland.

5. **Ampagia tarsalis** Lea.
   Ampagia tarsalis Lea: Royal Soc. South Australia, Trans., vol. 37, p. 443, 1913. Queensland.

6. **Ampagia hieroglyphica** Lea.
   Ampagia hieroglyphica Lea: Ent. Soc. London, Trans., vol. 77, pp. 189-190, 1929. Queensland: Bunya Mountains.

7. **Ampagia v-album** Lea.
   Ampagia v-album Lea: Ent. Soc. London, Trans., vol. 77, p. 190, 1929. Queensland: Kuranda.

TASMANIA

8. **Ampagia cognata** Lea.
   Ampagia cognata Lea: Linn. Soc. N. S. Wales, Proc., vol. 37, p. 607, 1912. Tasmania.

9. **Ampagia femoralis** (Erichson).
   Cryptorhynchus femoralis Erichson: Arch. Naturg., vol. 1, p. 204, 1842. Tasmania and King Island.

LORD HOWE ISLAND

10. **Ampagia leucomelia** Lea.
    Ampagia leucomelia Lea: Ent. Soc. London, Trans., vol. 77, p. 189, pl. 16, figs. 9 and 10, 1929.

11. **Ampagia montivaga** (Olliff).
    Idotasia montivaga Olliff: Aust. Mus., Mem., vol. 2, p. 93, 1889.

12. **Ampagia obscura** Lea.
    Ampagia obscura Lea: Ent. Soc. London, Trans., vol. 77, p. 189, pl. 16, figs. 21, 1929.

13. **Ampagia squamibunda** Lea.
    Ampagia squamibunda Lea: Ent. Soc. London, Trans., vol. 77, p. 188, pl. 16, figs. 13-18, 1929.

14. **Ampagia squamigera** (Olliff).
    Idotasia squamigera Olliff: Aust. Mus., Mem., vol. 2, p. 93, 1889.

NEW ZEALAND

15. **Ampagia rudis** (Pascoe).
    Acallopais rudis Pascoe: Ann. Mag. Nat. Hist., ser. 4, vol. 19, p. 147, 1877.

16. **Ampagia sculpturata** (Broun).
    Acallopais sculpturata Broun: Manual New Zealand Coleoptera, p. 495, 1880.

NEW CALEDONIA

17. **Ampagia cribricollis** Lea.
Ampagia cribricollis Lea: Ent. Soc. London, Trans., vol. 77, p. 192, 1929. Noumea.

18. **Ampagia seticurva** Lea.
Ampagia seticurva Lea: Ent. Soc. London, Trans., vol. 77, p. 193, 1929. Noumea.

19. **Ampagia granulifera** Lea.
Ampagia granulifera Lea: Ent. Soc. London, Trans., vol. 77, pp. 193-194, 1929. Noumea.

FIJI

20. **Ampagia rudesquamea** Fairmaire.
Ampagia rudesquamea Fairmaire: Soc. Ent. France, Ann., ser. 6, vol. 1, p. 312, 1881. Fiji.

21. **Ampagia basicollis** Lea.
Ampagia basicollis Lea: Ent. Soc. London, Trans., vol. 77, pp. 190-191, pl. 16, fig. 22, 1929. Vitilevu.

22. **Ampagia vitiensis** Lea.
Ampagia vitiensis Lea: Ent. Soc. London, Trans., vol. 77, p. 191-192, pl. 16, fig. 23, 1929. Vitilevu, Ovalau, Moturiki, Wakaya, Mokondronga, Vanualevu, Taviuni.

SAMOA

23. **Ampagia cribrellicollis** (Fairmaire).
Trigonopterus cribrellicollis Fairmaire: Soc. Ent. France, Ann., ser. 6, vol. 1, p. 316, 1881.

24. **Ampagia semisuturalis** Marshall.
Ampagia semisuturalis Marshall: Insects of Samoa, pt. 4, fasc. 5, pp. 307-308, 1931.

SOCIETY ISLANDS

25. **Ampagia vannifera,** new species. Tahaa.

26. **Ampagia ovata,** new species. Raiatea.

27. **Ampagia pallida,** new species. Huahine.

28. **Ampagia bella,** new species. Moorea.

29. **Ampagia conspersa,** new species. Moorea.

30. **Ampagia pustulata,** new species. Tahiti.

31. **Ampagia signifera,** new species. Tahiti.

32. **Ampagia similis,** new species. Tahiti.

33. **Ampagia infumata,** new species. Tahiti.

34. **Ampagia debilis,** new species. Tahiti.

35. **Ampagia brevis,** new species. Tahiti.

AUSTRAL ISLANDS

36. **Ampagia maculata,** new species. Raivavae.
36a. **Ampagia maculata ingens,** new subspecies. Raivavae.

MARQUESAS ISLANDS

37. **Ampagia pulla,** new species. Eiao.
38. **Ampagia umbrosa,** new species. Eiao.
39. **Ampagia cana,** new species. Eiao.
40. **Ampagia plumbea,** new species. Uapou.
41. **Ampagia vulgaris,** new species. Hivaoa.
42. **Ampagia concinna,** new species. Fatuhiva.

MANGAREVA ISLANDS

43. **Ampagia tesselata,** new species. Mangareva.

SOCIETY ISLANDS SPECIES

TAHAA

1. Ampagia vannifera, new species (figs. 2, *a*; 4, *a*).

Male. Derm shiny black, antennae and tarsi reddish; densely clothed with rather large, broad, heavily striated, predominantly yellowish, or pale, golden-brown scales.

Head: shallowly punctate, minutely reticulate, with numerous erect setae and scattered, broad, striated, pale brown scales. Rostrum: very densely, coarsely and confluently punctured; a rather vague, median costa above the insertion of the antennae, with numerous, long, white setae on the basal half, and short, fine, white setae on the apical half. Antennae: with the scape as long as the first two funicular segments together; club as long as the preceding four segments; first funicular segment longer and heavier than the second, segments 3-5 subquadrate and successively slightly shorter. Prothorax: wider than long (2.50:2.25), nearly straightly narrowing from the base to the rounded apex which is less than three fifths as wide as the base; densely clothed with broad, rounded, rather pale, golden-brown scales that do not entirely conceal the derm, a small patch of white scales about the middle of the outer edge of the disk; with mainly dark, rather heavy, erect setae inclined anteriorly, sparse on the basal half but becoming very numerous apically; disk with close set, oval punctures that are larger and coarser on the apical half, those on the sides becoming longitudinally oval anteriorly, but not confluent. Elytra: continuous in lateral outline with the prothorax and rather evenly arcuate from base to apex, about three fourths as wide as long; densely clothed with golden brown scales similar to, but slightly smaller than those of the pronotum and variegated with paler and darker scales, those of the sutural interspace smaller and somewhat more elongate within the basal three fourths; striae 1-4 marked only by widely spaced, minute punctures, the punctures successively larger in the outer rows; row 8 distinctly striate in the apical third, row 9 striate in apical half, row 10 striate and ending a little behind the anterior lateral margin of the first ventrite; intervals flat, each with a row of slanting setae. Legs: with the bases of the femora

with white scales, otherwise densely covered with golden-brown scales and white setae. Underside: with the metasternum concave, rather coarsely reticulate, almost impunctate, with long, erect, plumose setae at the sides, the posterior margin rather deeply emarginate; first ventrite slightly longer than ventrites 2-5 inclusive along the median line; the median plate concave, reticulate, with small, scattered punctures bearing plumose and hair-like setae, margined by a curved, impressed line and a polished costa; ventrite 2 with large scattered, white setae; ventrite 5 convex, two thirds as long as wide, densely set with rounded punctures, rather densely reticulate, with numerous, erect, white setae and a few white, oblong scales at the base. Length, 3.00 mm; breadth, 1.25 mm.

Holotype male, collected by me while beating shrubs on the east side of Mount Purauti, elevation 1200 feet, October 11, 1934.

This species is rather distinct in that the scales on both the thorax and elytra are rather deeply striated and remind one of small fans. This character alone will distinguish the species from all the others described herein. I have some new Fijian species which have the scales nearly as deeply striated.

RAIATEA

2. Ampagia ovata, new species (figs. 2, *b*; 4, *b*).

Derm shiny black with the antennae, apices of the femora, tibiae, tarsi, and often the apical half of the elytra reddish; the scaling predominantly brown with cupreous reflections, with variegations of chocolate-brown scales on the elytra, paler in old, worn specimens.

Head: reticulate, densely clothed with coppery scales; a row of erect, white setae around the eyes, a few scattered, dark setae on the forehead; rugosely punctured between the eyes, with small, shallow, scattered punctures that are not easily discernible above the eyes. Rostrum: in the male very coarsely punctate, the punctures elongate and confluent, sub-carinate anterior to the insertion of the antennae; base with numerous, erect, white setae and a few scattered, large, rounded scales, and fine, erect, pale setae apically, rather abruptly expanded beyond the insertion of the antennae; in the female with almost the entire rostrum with small, scattered punctures, a few erect, white setae at the base, otherwise almost bare, not so abruptly expanded apically but becoming gradually wider beyond the insertion of the antennae. Antennae: with the scape as long as the first two funicular segments together; first funicular segment much stouter than 2, as long as 2 and 3 together; club as long as the preceding 5 segments together. Prothorax: broader than long (2.25:2.00), base truncate, sides almost straightly narrowing to the broadly rounded apex, dorsal outline slightly, longitudinally convex; closely set with elongate-oval punctures on the disk, and before the middle on the sides, almost impunctate on the sides in the basal half, the apical half with numerous, long, erect, white and brownish setae that are most numerous at the apex. Elytra: broadly and roundly narrowing from base to apex, twice as long as the prothorax; striae on the basal half of the disk nearly or entirely obliterated, stria 10 coarse and distinct throughout and with shallow punctures, striae 8, 7, 6 and 5 marked only by rather large, shallow punctures in the basal half but by distinct striae in the apical half; striae 8 and 7 joined at the base; intervals flat, each with a row of rather long,

erect setae. Sternum: with the metasternum coarsely reticulate, impunctate, impressed in the middle, its posterior margin rather deeply notched, with long, erect, white, plumose setae at the sides; metacoxae very coarsely and deeply punctured. Venter: with the first ventrite twice as long as 5, the median plate reticulate, with small, scattered, shallow punctures that bear simple and plumose setae, shallowly concave throughout in the male; in the female with the basal half concave and the apical half shallowly impressed; ventrite 2 with some elongate white scales at the sides, ventrite 5 convex, densely punctate, with oval white scales and erect setae, one half as long as wide. Length, 2.0-2.5 mm; breadth, 0.8-1.0 mm.

Holotype male, described from five specimens, two males and three females, taken by me while beating dead branches of shrubs at an elevation of 1500 feet on Temehani Plateau, October 5, 1934.

This species has the sides of the prothorax impunctate in the basal half in common with the two other leeward Society Islands species. It can be distinguished almost at once from *A. vannifera* by the less deeply striated scales on the thorax and by the more precipitous hind angles of the posterior femora. The pale scaling of *A. pallida* readily separates it from this species.

HUAHINE

3. Ampagia pallida, new species (figs. 2, *c*; 4, *c*).

Female. Derm shiny black, with the antennae, tibiae and tarsi reddish-brown; clothed above with large scales that are not dense enough to entirely conceal the derm on either prothorax or elytra; the scaling predominantly whitish and pale yellowish brown, with some patches of dark brown scales on the elytra.

Head: with coarse punctures between the eyes, elsewhere almost impunctate, the scales forming a dark brown patch on the forehead, otherwise yellowish-brown with a few white scales above the eyes, with long, slender, erect, white setae between and partially surrounding the upper margins of the eyes. Rostrum: coarsely punctate at the base, otherwise with smaller, scattered punctures, coarser and denser laterally. Antennae: with the scape as long as the first two funicular segments together, funicular segment 1 equal in length to 2 and 3 together, much stouter than 2 and about as wide as 7, segment 2 slightly longer than 3 and 4 together; club as long as segments 3-7 inclusive. Prothorax: slightly broader than long (2.25:2.00), almost straightly narrowed to the broadly rounded apex; base truncate; the disk with oval scales almost impunctate within the basal two thirds on the sides, the apical third with scattered elongate-oval punctures, the apical half with inclined setae that are brownish and most numerous just before the apex; the scaling mainly pale yellowish-brown with scattered white scales. Elytra: less than three-fourths as broad as long (4.0:2.5), roundly narrowing from the base to the broadly rounded apex; the scaling predominantly white and pale yellowish-brown, a dark, elongate patch on interval 2 at the base and several variable, dark brown patches on the first three intervals behind the middle; the striae marked only by very small punctures on the disk but distinctly striate on the declivity, stria 10 ending in a rather isolated puncture behind the anterior margin of ventrite 1,

stria 9 rather vaguely impressed and with shallow punctures in about the basal half; the other striae marked only by shallow punctures in the basal half, intervals flat, each with a row of rather short, erect setae. Sternum: with the metasternum concave, very coarsely reticulate, impunctate, the sides with erect, white, plumose setae; its posterior margin deeply and broadly emarginate. Venter: with the first ventrite more than twice as long as 5; the median plate convex, but flattened in the middle and margined by a rather deeply impressed line, finely reticulate, with sparse, scattered punctures that bear white, plumose setae and a few narrow, prostrate scales at the sides near the base; ventrite 2 with scattered punctures bearing elongate-oval scales; 5 one half as long as wide, convex, coarsely and densely punctate, with numerous, slender, erect setae and a few slender, prostrate scales. Length, 2.1 mm; breadth, 1.0 mm.

Described from one female specimen (holotype) taken by me while beating shrubs on the northwest ridge of Mount Turi, at an elevation between 1700 and 2100 feet, October 1, 1934.

This species is perhaps most closely allied to *A. ovata* from Raiatea, from which it can be separated by its pale scaling; the scales of the disk of the prothorax are broader and rounded, while some of those of *A. ovata* are rather straight-sided.

MOOREA

Key to Species

A. Lateral outline rather narrowly elongate oval as in fig. 2, *d*, hind femora as in fig. 4, *d;* stria 8 joining 7 at a distance from the base of the elytra, 7 distinct to the base, 6 beginning at a distance from the base, 1-5 beginning close to the base; scaling predominantly bright coppery-brown ..... **A. bella**

B. Lateral outline rather broadly oval as in fig. 2, *e;* hind femora with the hind angle much more declivitous as in fig. 4, *e*; striae 8, 7, and 6 beginning successively more distant from the base, the others beginning close to the base, stria 8 not joining 7; scaling predominantly pale brown..... ..... **A. conspersa**

4. **Ampagia bella,** new species (figs. 2, *d*; 4, *d*).

Male. Derm shiny, reddish-brown to black; densely clothed above with brownish-orange or coppery-brown scales variegated with white and very dark brown scales.

Head: with the scales dense, pale reddish-brown with a patch on the forehead darker; a row of erect setae around the inner margins of the eyes and a few between the eyes; coarsely punctate between the eyes, otherwise reticulate and hardly punctate. Rostrum: coarsely and subconfluently punctate throughout, with oval scales and erect setae at the base, otherwise with sparse, fine setae; a vague median carina on the basal half. Antennae: with the scape as long as funicular segments 1 and 2 together; first funicular segment as long as 2 and 3 together, 2 about as long as 3 and 4 together; club equal in length to segments 3-7 inclusive. Prothorax: conical, rather short, much broader than long (2.25:1.75), the sides almost straight, apex broadly rounded, base truncate;

the scaling predominantly orange-brown, several white scales before elytral interval 3, a few black scales before interval 2, a black patch on either side the median line at the middle; the scales sub-oval, those on the sides more conspicuously striated; densely punctate throughout, but the punctures are larger near the apex than near the base on the disk; with sub-erect setae from base to apex. Elytra: elongate, almost straightly narrowing from about the basal fourth to the broadly rounded apex, more than one-half as broad as long (2.5:4.0); the scaling dense, many of the scales with coppery reflections; interval 3 with the scales very dark brown in the basal fourth, interval 2 with a similar but shorter vitta at about the basal fourth but not reaching the base, interval 1 with some similar dark scales posterior to this, interval 3 with the scales dark brown from about the middle to before the apex, intervals 1 and 2 with patches of black scales near the top of the declivity; the striae of the disk hardly impressed and with small punctures, stria 10 deeper than the others and terminating at about the anterior margin of the first ventrite, stria 9 deep and distinct throughout. Sternum: with the intercoxal process of the mesosternum concave except in the middle and without distinct rows of punctures; mesosternum rather coarsely punctate, its posterior margin broadly emarginate, with numerous, erect, plumose setae at the sides. Venter: with the first ventrite not twice as long as 5 (2.5:1.5), the median plate concave in the middle, bounded by a broad, impressed, straight line, reticulate and with small, shallow, scattered, setiferous punctures; ventrite 2 with elongate, oval, whitish scales; ventrite 5 not twice as wide as long (2.5:1.5), more convex and more coarsely punctate at the base than apex, with numerous, elongate, white scales and fine setae. Length, 2.1 mm; breadth, 1.0 mm.

Described from one very clean, unabraded specimen (holotype) collected by me while beating shrubs on the north ridge of Mount Teaharoa, elevation 2100 feet, September 25, 1934. Allied to *A. conspersa*.

5. Ampagia conspersa, new species (figs. 2, *e*; 4, *e*).

Female. Derm shiny black, elytra diluted with red, rostrum, antennae, tibiae and tarsi reddish-brown; rather densely clothed above with pale brown scales variegated with whitish and dark brown scales.

Head: densely clothed with pale brown scales, those on the forehead darker, those just above the eyes paler; with erect white setae between the eyes and partially around the dorsal margin of the eyes; coarsely punctate between the eyes, otherwise reticulate and almost impunctate. Rostrum: coarsely punctate and with pale, oval scales and white, erect setae at the base, otherwise bare and with scattered punctures. Antennae: with the scape arcuate, as long as funicular segments 1 and 2 together; first funicular segment as long as 2 plus 3, 2 longer than 3 plus 4; club equal in length to segments 3-7 inclusive. Prothorax: broader than long (2.25:2.00), conical, almost straight on the sides, the apex broadly rounded, the base very shallowly bisinuate; closely punctate throughout, the punctures on the apical half larger, closer and elongate, those on the basal half sparser, and smaller; the scaling predominantly golden-brown, the scales on the dorsum broadly sub-triangular; with scattered, inclined setae that are most numerous towards the apex. Elytra: rather short and broad, broadly rounded from base to apex, less than three-fourths as broad as long (2.7:4.0);

scaling predominantly golden-brown, a short, dark brown vitta near the base on interval three and extending onto interval two posteriorly, a common, vague, irregular, broad U of dark brown scales just behind the middle extending over intervals 1-4; several indefinite, dark brown patches posterior to this, the disk with some scattered white scales; suture not concealed by scales before the declivity; striae 1 and 2 almost obsolete near the base, 3, 4 and 5 distinctly impressed near the base, 6, 7 and 8 marked by shallow punctures near the base, stria 9 distinctly impressed, 10 deeper than the others and terminating at about the middle of the hind coxa; intervals flat, each bearing a row of rather short, erect setae. Sternum: with the metasternum reticulate, impressed, its hind margin broadly emarginate, with long, erect, plumose setae at the sides. Venter: with ventrite 1 about twice as long as 5, the median plate concave at the base and before the apex, otherwise convex, margined by a broad, impressed line, reticulate and with scattered setiferous punctures; ventrite 2 with elongate, oval, white scales, 5 slightly convex, coarsely punctate, with numerous, whitish, oval scales, and erect setae. Length, 2.1 mm; breadth, 1 mm.

Described from one female specimen (holotype) from the Pacific Entomological Survey collection, Opunohu Valley, three miles from the sea, elevation 500 feet, December 3, 1928, A. M. Adamson.

This species and *A. bella* are closely related; the differences given in the synoptic table will serve to distinguish these species.

TAHITI

Key to Species

1. Length 2.4 mm or more, scape as long as or but slightly longer than funicular segments 1 plus 2, the bounding line of the ventral plate sharply impressed 2
   Length less than 2.25 mm, scape as long as the first three funicular segments together, the bounding line of the ventral plate not sharply impressed, rather vague 5
2. Stria 10 indistinct behind the meta-coxa 3
   Stria 10 distinct behind the meta-coxa ..... **A. pustulata**
3. Hind femora broadest at about one fourth from the apex; the posterior angle more declivitous as in fig. 4, *h* and i; the bounding line of the ventral plate gradually curved as in fig. 1, *h* 4
   Hind femora with the hind angle less declivitous, broadest at about two fifths from the apex as in fig. 4, *g;* the bounding line of the ventral plate angulate as in fig. 1, *i* ..... **A. signifera**
4. Stria 5 coarsely impressed between the punctures near the base, the punctures more elongate and subconfluent ..... **A. similis**
   Stria 5 not impressed between the punctures near the base, the punctures large, shallow, round and distant one from the others; the scaling predominantly brilliant coppery-brown ..... **A. infumata**
5. Hind femora very broad, the hind angle very steep as in fig. 4, *j;* humeri not evident (fig. 2, *i*) ..... **A. debilis**
   Hind femora narrower, the hind angle not so steep; fig. 4, *k;* humeri rather conspicuous (fig. 2, *j*) ..... **A. brevis**

6. Ampagia pustulata, new species (figs. 2, *f*; 4, *f*).

Male. Derm shiny black, with the antennae and tarsi reddish-brown; the scaling predominantly rather dirty yellow, interspersed with white and dark brown scales, some of them with metallic reflections.

Head: reticulate and impunctate except for large, sub-confluent punctures between the eyes; densely clothed with yellowish scales; a row of erect whitish and yellow setae around the inner margins of the eyes. Rostrum: densely and rugosely punctate throughout, subcarinate from base to antennae, the base densely clothed with rounded, yellowish scales and erect setae. Antennae: with the scape slightly longer than the first two funicular segments together; first funicular segment equal in length to 2 plus 3, segment 3 equal in length to 4 plus 5, club equal in length to the preceding 5 segments together. Prothorax: subconical, distinctly broader than long (2.5:1.75), almost straight on the sides, apex broadly rounded, base nearly truncate, the dorsal outline just perceptibly flattened before the apex, nearly evenly convex, closely punctate throughout, the punctures smaller at the base; not very densely clothed with rounded, yellowish scales, with an oblique patch of white scales on the basal half beginning before elytral interval 3, some scattered, darker scales on the disk, the setae, except near the apex, all recumbent. Elytra: rather evenly and broadly rounded from base to apex, less than three fourths as wide as long (3.00:4.75); scaling rather dense, predominantly yellowish with scattered white scales, a variable rather oblique stripe of very dark brown scales within the basal fourth on interval 3 and continuing posteriorly a short distance on interval 2 at about the basal fourth, a similar dark brown patch near the top of the declivity, some dark brown scales on the sides near the middle; the scales on the first interval smaller and more convex in the basal half; striae 1-4 feebly impressed in the basal half, 5 marked only by small punctures between the basal fourth and half, 6, 7, and 8 not impressed within the basal half, but marked with large, shallow, punctures, 6 not reaching the base, 8 joining 7 before the base, 9 distinctly striate throughout, 10 traceable to the second ventrite; intervals each with a row of short, curved, inclined setae. Sternum: with the metasternum reticulate, with long, white, plumose setae at the sides, the posterior margin broadly emarginate. Venter: with the first ventrite twice as long as 5, the median plate concave in the middle, reticulate and with small, scattered, setiferous punctures, the impressed line bounding the median plate rather sharply defined; ventrite 5 slightly less than twice as broad as long, convex, densely punctate and with elongate white scales and fine setae. Length, 2.6 mm; breadth, 1.2 mm.

Described from one male specimen (holotype) collected by me on Mount Aorai Trail, at an elevation between 4,000 and 5,000 feet while beating shrubs, September 16, 1934.

This species and *A. similis* are related and much alike. The tenth stria of this species extends behind the hind coxa and will serve to separate the two species.

Ampagia, species indeterminate.

I have one male specimen of a new species closely related to *A. pustulata.* I do not wish to name it, for it was killed and tightly bound in web by a spider and is now almost completely denuded

of scales. This species may be distinguished from *A. pustulata* as follows: rostrum with two rather distinct costae from base to slightly beyond the antennae, with a short costa between these at the antennae; prothorax more coarsely punctate, the punctures on the sides beyond the middle tending to become longitudinally confluent; elytra with striae 6 and 7 beginning at a distance from the base (at the posterior margin of the second puncture of stria 8), stria 8 beginning near the base, 10 ceasing entirely behind the anterior margin of the first ventrite; venter with the bounding line of the median plate of the first ventrite not sharply defined and raised instead of being rather sharply impressed.

Collected by me while beating shrubs, Mount Aorai Trail, Tahiti, at an elevation between 3500 and 4500 feet, September 13, 1934.

7. Ampagia similis, new species (figs. 2, *g*; 4, *h*).

Female. Derm shiny, rather piceous black, rostrum and tarsi reddish brown, the elytra and legs diluted with red; the scaling similar to that of *A. pustulata.*

Head: coarsely reticulate wth the surface uneven, but not distinctly punctate except for large, coarse, confluent punctures between the eyes; scaling dense, with a large median dark area, the scales around the eyes forming a white stripe two scales wide, the scaling otherwise pale brownish-yellow. Rostrum: coarsely punctate at the base and laterally to the antennae, elsewhere shining and with smaller, isolated punctures. Antennae: with the scape about as long as the first two funicular segments together; first funicular segment as long as 2 plus 3, 2 about as long as 3 plus 4; club equal in length to segments 4-7 together. Prothorax: conical, almost straight on the sides, the apex broadly rounded, base almost truncate, slightly broader than long (2.50:2.25), the dorsal outline just perceptibly concave before the apex, almost flat from middle to the apex; the punctures on the disk not becoming more elongate apically, smaller before the scutellum, and within about the basal half on the sides, larger and more elongate on the anterior half on the sides. Elytra: broadly rounded from base to apex, less than three-fourths as broad as long (3.0:1.5); scaling much as in *A. pustulata*; striae 1-4 feebly impressed in the basal half, 5 rather coarsely impressed in the basal half and with the punctures much larger than those of the preceding 4 rows, 6 not impressed in the basal half and not reaching the base, 7 and 8 not impressed in the basal half and joining before the base of the elytra, 9 slightly impressed in the basal half, the large, shallow punctures giving way to a rather deep stria in the posterior half, the basal puncture at a distance from the base of the elytra and giving the appearance of striae 7, 8, and 9 joining before the base, 10 indistinct behind the middle of the meta-coxa. Sternum: with the metasternum coarsely reticulate, with long, white, plumose setae at the sides, the posterior margin shallowly emarginate. Venter: with the median plate of the first ventrite bounded by an impressed line, about twice as long as 5, shallowly impressed in the middle near the base, elsewhere slightly convex, reticulate and with setiferous punctures that are larger within the basal half and tend to be confluent; ventrite 2 with large whitish scales; 5 convex, less than twice as wide as long, more coarsely punctate at the base than apex, with elongate, pale scales and slender setae. Length, 2.5 mm; breadth, 1.2 mm.

Described from one female specimen (holotype) taken by me while beating shrubs, district of Vairao, elevation of about 1000 feet on Vairao Plateau, March 30, 1934.

This species is closely related to *A. pustulata.* A comparison of the hind femora, however, will immediately separate the two species. In *A. pustulata* they are much less dilated and the posterior angle is less abrupt. The tenth stria in *A. pustulata* is distinct to the second ventrite but in *A. similis* it is obsolete beyond the middle of the hind coxa. In *A. pustulata* stria 9 approaches nearest the base of the elytra with 8 and 7 beginning successively more distant from the base. In *A. similis* striae 7 and 9 begin at about the same distance from the base with 8 beginning at about the second punctures of striae 7 and 9.

8. Ampagia infumata, new species (figs. 2, *h*; 4, *i*).

Male. Derm shiny black, with the antennae, apices of the tibiae and the tarsi reddish-brown; scaling predominantly coppery-brown clouded with very dark brown scales and with scattered, white scales.

Head: reticulate and almost impunctate except for the usual coarse punctures between the eyes; scaling dense, a few pale scales above the eyes, brown between the eyes and on the front with those on the crown very dark, with a row of erect, pale setae around the inner margins of the eyes. Rostrum: densely, coarsely and confluently punctate, carinate between the antennae. Antennae: with the scape longer than funicular segments 1 and 2 together; first funicular segment equal in length to 2 plus 3, 2 about equal to 3 plus 4; club about equal in length to the preceding 5 segments together. Prothorax: conical, almost straight on the sides, apex broadly rounded, base sub-truncate, almost as long as broad, rather closely punctate throughout, the punctures in the middle of the disk round and larger than those near the base and apex, those on the sides smaller in the basal half, elongate oval in the apical half and not tending to become longitudinally confluent; the scales not very dense, almost round, rather deeply striated, pale coppery-brown; the setae rather numerous and inclined anteriorly. Elytra: almost straightly narrowing from about the basal fourth to the broadly rounded apex, less than three-fourths as broad as long (2.75: 4.00); scaling dense, predominantly coppery-brown clouded with patches of very dark brown scales, with a few scattered, white scales, a rather vague, common V of mainly dark brown scales from the base of the third intervals to before the middle; the intervals bearing a row of rather conspicuous setae; stria 10 terminating at the posterior margin of the hind coxa, 9 beginning slightly behind the base of the elytra and consisting of punctures only to above the middle of the hind coxa from whence it is distinctly striate, the first puncture of 8 slightly behind that of 9, the first puncture of 7 on a line between punctures one and two of stria 8, the first punctures of striae 7 and 6 successively nearer the base. Sternum: with the metasternum coarsely reticulate, its posterior margin very shallowly emarginate, with very long, slender, white, plumose setae at the sides behind. Venter: with ventrite 1 twice as long as 5, the median plate bounded by an evenly impressed line, concave in the middle, shallowly and rather closely punctate, the punctures bearing long, very fine simple and plumose

hairs; ventrite 5 convex, coarsely punctate and with elongate pale scales and fine erect setae. Length, 2.4 mm; breadth, 1.6 mm.

Described from one male specimen (holotype) taken by me on Mount Aorai Trail while beating ferns at an elevation between 3500 and 4500 feet, September 13, 1934.

This species is closely related to *A. similis,* but the fifth stria is not impressed between the punctures as it is in *A. similis.*

9. Ampagia signifera, new species (figs. 1, *c*; 2, *k*; 4, *g*).

Derm shiny black, with the antennae, tibiae and tarsi reddish-brown; scaling predominantly fulvous with variable patches of very dark brown and white scales.

Head: densely clothed with fulvous scales with those on the forehead dark brown; with two or three rows of erect, white setae around the inner margins of the eyes and across the front; coarsely punctate between the eyes and with a few, scattered punctures around the upper margins of the eyes, otherwise coarsely reticulate and nearly impunctate. Rostrum: in the male very coarsely and closely punctate throughout, carinate on the basal half, dilated above the antennae; in the female coarsely punctate at the base only, elsewhere with scattered punctures, not conspicuously dilated above the antennae. Antennae: with the scape as long as the first two funicular segments together, first funicular segment equal in length to 2 plus 3, 2 equal to 3 plus 4; club slightly longer than the four preceding segments together. Prothorax: conical, almost straight on the sides, base very slightly sinuate, distinctly broader than long (3.75:3.00), dorsal outline slightly impressed in the apical half; the scaling not completely concealing the derm, the scales large and rounded, distinctly striated, predominantly fulvous, with scattered white scales on the sides of the disk; the setae most numerous near the apex; densely punctate throughout, the punctures larger and elongate on the sides especially towards the apex, the punctures very small near the base. Elytra: broadly rounded from base to apex, about three fifths as broad as long (3.5:5.5); the scaling dense, normally concealing the derm, the scales along the suture very dense, smaller and more convex; the scales predominantly fulvous, a variable, oblique, very dark brown (nearly black) patch of scales across intervals 2 and 3 near the base, an outstanding, variable patch of similarly colored scales at the top of the declivity, with several other smaller patches of very dark brown scales and scattered patches of white scales, a dark patch of scales on interval 7 before the middle; intervals each with a row of conspicuous setae; stria 10 indistinct beyond the middle of the hind coxa, 9 with large punctures from base to above the hind coxa and thence deeply impressed, the first puncture in row 8 separated from the base of the elytra a distance about equal to that between the first and second punctures, the punctures of rows 6 and 7 behind the first puncture of row 8, the other striae distinct to the base. Sternum: with the metasternum as usual. Venter: with ventrite 1 twice as long as 5, the median plate concave in the male and convex in the female; 5 less than twice as broad as long (1.25:.75). Length, 2.75-3.00 mm; breadth, 1.2-1.4 mm.

Holotype female, described from one male and two female specimens from the Pacific Entomological Survey collection, Vallee de la

Reine, two miles from the sea, December 17, 1928, E. P. Mumford and A. M. Adamson.

This is the largest of the Society Island species. The markings are very distinct, and the patches of dark scales stand out against the pale background; the setae of the elytra are rather prominent. It belongs in the *pustulata-similis-infumata* complex and can be distinguished from those species by the characters given in the key.

10. Ampagia debilis, new species (figs. 2, *i*; 4, *j*).

Female. Derm shiny black, with the antennae and tarsi reddish-brown, the rostrum and part of the venter diluted with red; the scaling not entirely concealing the derm, the scales on the prothorax much larger than those of the elytra, the scales predominantly yellowish and dark brown.

Head: reticulate and not coarsely punctate between the eyes, the scaling predominantly dark brown, paler between the eyes. Rostrum: with coarse punctures at the base, elsewhere with small, scattered punctures that become larger on the sides. Antennae: with the scape as long as the first 3 funicular segments; first funicular segment slightly longer than 2 plus 3, 2 equal in length to 3 plus 4; club as long as the preceding 5 segments together. Prothorax: conical, nearly straight on the sides, broader than long (2.00:1.75), base truncate; the scales predominantly yellowish, the derm easily seen between them; not very closely punctate, the punctures not tending to become longitudinally confluent on the sides near the apex. Elytra: becoming rather abruptly wider than the prothorax at the base, thence broadly rounded to the apex, much more than one half as broad as long (2.50:3.75); the scales on the disk predominantly yellowish, the scales on intervals 1-5 brownish with coppery reflections in the apical half; the intervals with a row of inclined, not very conspicuous setae; stria 10 terminating at about the middle of the hind coxa, the first puncture in the other rows at a distance from the base, the basal punctures of rows 7 and 8 subconfluent. Sternum: as usual. Venter: with the first ventrite slightly less than twice as long as 5, the median plate convex, coarsely reticulate, with scattered, small setiferous punctures; ventrite 2 with oval, white scales; 5 almost twice as broad as long, slightly convex, not densely punctate, the punctures largest near the base and minute near the apex. Length, 2 mm; breadth, 1 mm.

Described from one female specimen (holotype) taken by me while beating ferns, Mount Aorai Trail, elevation between 3500 and 4500 feet, September 13, 1934.

Allied to *A. brevis*.

11. Ampagia brevis, new species (figs. 2, *j*; 4, *k*).

Female. Derm shiny black, with the rostrum, antennae, underside, tibiae and tarsi reddish-brown; scaling less dense than usual, not entirely concealing the derm on the prothorax or elytra, the scaling predominantly fulvous and very dark brown with patches of white scales.

Head: with fulvous scales, not very dense, the derm usually exposed between the scales, those above the eyes paler, with a few indistinct, shallow punctures between the eyes, elsewhere coarsely reticulate and almost impunctate; a row of erect, whitish setae around the eyes and several across the front.

Rostrum: not very coarsely punctured at the base, the punctures tending to be longitudinally confluent, shiny and shallowly punctate to the apex, almost impunctate along the median line, the punctures larger and becoming longitudinally confluent laterally. Antennae: with the scape as long as the first three funicular segments together; first funicular segment almost as long as segments 2, 3, and 4 together, 2 about as long as 3 and 4 together; the club as long as the preceding 5 segments together. Prothorax: short and broad, conical, almost straight on the sides, base nearly truncate, distinctly wider than long (2.25:1.80); scaling predominantly fulvous, a rather vague band of white and pale scales margin the disk on the sides, the scales subtriangular and usually distinctly separated with only an occasional one overlapping its neighbor; not very closely punctate, the punctures not tending to be longitudinally confluent near the apex on the sides; the setae mostly recumbent with a few inclined ones near the apex. Elytra: broadly rounded from base to apex, more than one-half as broad as long (2.5:4.0); a veriable V of dark brown scales on intervals 2 and 3 in the basal fourth, scaling on the apical half predominantly dark brown, an irregular patch of fulvous and white scales on the declivity enclosed by dark brown scales, elsewhere with patches of white and dark brown scales, the intervals each with a row of inclined setae; stria 10 indistinct slightly beyond the basal margin of ventrite 1, the first puncture of row 9 distant from the base of the elytra, row 8 almost joining row 7 at the second puncture, the first punctures of rows 3-7 distant from the base of the elytra. Sternum: with the metasternum coarsely reticulate, with fine, plumose setae on the sides, the apical margin broadly emarginate. Venter: with the first ventrite twice as long as 5, the median plate convex, separated by a shallowly impressed line, reticulate, with very small, scattered, setiferous punctures; 5 less than twice as wide as long (4.5:2.5), convex, closely but not very coarsely punctured, with oval scales at the sides in the basal half and with fine erect setae. Length, 2 mm; breadth, 1 mm.

Described from one female specimen (holotype) taken by me while beating *Metrosideros,* Mount Aorai Trail, elevation between 4500 and 5500 feet, September 14, 1934.

This species and *A. debilis* are the smallest species described in this paper and are among the smallest of the genus. They can be distinguished by the hind femora which are narrower and the hind angle not so precipitous in this species as they are in *A. debilis.*

Austral Islands Species

RAIVAVAE

I have collected on all of the Austral Islands and found the genus *Ampagia* on the southernmost island of the group only. (I consider Raivavae to be the southern limit of the Austral Islands and believe that Rapa should be considered as an isolated island rather than one of the Austral Islands because of its rather distinct flora and fauna). On Tubuai and Rurutu I found *Ampagioides.* Rimitara is a low island with its inland endemic woods completely burned over and replaced

by agricultural plots; I found no endemic Cryptorrhynchinae there. Maria, the northwest island of the group, is a low, flat, coral atoll thickly covered with a tangle of *Pandanus* interspersed with a few other trees and shrubs and without the necessary ecological niches for the support of *Ampagia.*

12. Ampagia maculata, new species (figs. 1, *e*; 3, *e*; 4, *l*).

Derm reddish black to black, with the antennae, tibiae and tarsi paler; the scaling not entirely concealing the derm, the scales oval, not striated, closely appressed to the derm, with a peculiar silky lustre, tawny and yellowish variegated with patches of white and dark brown scales, the scales in fresh specimens with iridescent reflections.

Head: coarsely reticulate, coarsely punctate between the eyes, elsewhere with few punctures; the scaling dense, brownish-yellow, scales between the eyes paler; a row of white, erect setae around the eyes; the interocular area slightly narrower than the rostrum at the antennae. Rostrum: very coarsely and confluently punctate throughout in the male and usually subcarinate in the basal half; in the female very shiny and with small rather even punctures. Antennae: with the scape equal in length to funicular segments 1 plus 2; funicular segment 1 equal in length to 3 plus 4; club not equal in length to the preceding five segments together. Prothorax: straight on the sides, base hardly sinuate, broader than long (2.50:2.25); the scaling of the disk tawny, outlined by white or paler scales, the scaling paler on the sides; a patch of suberect setae at the apex; punctures rather close, elongate-oval, larger and tending to become longitudinally confluent near the apex on the sides. Elytra: broadly rounded from base to apex, less than three-fourths as broad as long (3.0:4.5); a patch of very dark brown scales on intervals 2 and 3 within the basal fourth, usually an elongate patch of similar scales on interval 1 behind this, an irregular, variable, transverse patch at the top of the declivity and several small patches on the declivity of similar dark scales, a conspicuous, narrow, white line on the lateral margin of the second interval about the middle, the scaling otherwise fawn colored, yellowish, and with scattered patches of white scales; stria 10 terminating at the hind coxa, the first punctures in the other rows at a distance from the base, those of rows 6 and 7 usually, but with some variation, at about the second punctures of row 8. Sternum: with the metasternum impressed on either side of the middle at the base. Venter: with the first ventrite twice as long as 5; 5 about twice as broad as long; the median plate of the first ventrite of the male concave, in the female, convex. Length, 2.4 mm; breadth, 1.2 mm.

Described from a series of nine specimens collected by me as follows: holotype, female, taken while beating a species of *Celastraceae* on the west slope of Mount Muanui, elevation 500 feet, August 8, 1934; one male from the same locality and host, elevation between 400 and 700 feet, August 6; two males and one female beaten from *Alyxia,* south slope of Pic Rouge, elevation between 200 and 400 feet, August 5; one male beaten from *Celtis* and one female beaten from *Myoporum,* southeast slope Mount Turivao, elevation 500 feet, Aug-

ust 13; one male beaten from *Hernandia,* south slope Mount Araua, elevation 1,000 feet, August 14.

This species is quite constant as to size; the median plate of the first ventrite in the male is not concave in two of the specimens; the first puncture of row 6 may sometimes be nearer the base of the elytra than that of row 7. The scales on this species and the subspecies *ingens* are peculiarly solid, compact, non-striate, with a silken luster and are unlike any of the other species. The scaling alone will distinguish this species from the others. In old, worn specimens the scales may lose their solid, silken appearance and appear paler in color.

12a. Ampagia maculata ingens, new subspecies (fig. 3, *f*).

Similar to *A. maculata* but much larger. This subspecies differs from the type as follows: interocular area as broad or slightly broader than the rostrum between the antennae; the prothorax much broader than long (3.50:2.75, difference .50; in typical *maculata* the difference in length and breadth is .25, and the measurements are almost constant 2.50:2.25); the elytra are more elongate 6:4 as compared with 4.5:3.0. Length, 3.6 mm; breadth, 1.6 mm.

Described from three males and one female collected by me as follows: holotype, male, beaten from a species of *Celastraceae,* south slope Mount Muanui, elevation 400-700 feet, August 6, 1934; another male from the same locality and host, elevation 500 feet, August 8; one male from Pic Rouge, elevation 200-400 feet, August 5; one female, smaller than the males, beaten from a species of *Celastraceae,* south slope Mount Taraia, elevation 700 feet, August 9.

The median plate of the first ventrite of the female is slightly convex; in two of the male specimens it is deeply concave and on one it is concave but not so deeply as in the other two specimens.

Marquesan Species

EIAO

Key to Species

A. Scaling of prothorax predominantly white with patches of dark scales; posterior femora as in fig. 4, n and o.....2

Scaling of prothorax very dark brown with two small patches of pale scales; posterior femora with the hind angle less precipitous, as in fig. 4, m...**A. pulla**

B. Scaling very dark brown and white with patches of yellowish scales, the posterior half of the elytra very dark brown, with patches of whitish and yellowish scales .....**A. umbrosa**

Scaling pale, predominantly white with patches of yellowish or brownish scales .....**A. cana**

13. Ampagia pulla, new species (figs. 2, *l*; 4, *m*).

Male. Derm shiny black, somewhat diluted with red, antennae, tibiae, and tarsi paler; the scaling predominantly very dark brown with patches and lines of white scales; the elytra with a yellowish-brown median vita.

Head: very densely clothed with dark brown scales, a large patch of white scales on the crown; a double row of erect, white setae around the eyes. Rostrum: with the scaling extending to the apical fourth, very coarsely punctate throughout, and with a vague, median carina. Antennae: with the scape somewhat longer than funicular segments 1 and 2 together; funicular segment 1 as long as 2 plus 3, 2 as long as 3 plus 4; club as long as the four preceding segments together. Prothorax: distinctly broader than long (3.25:1.75), base practically truncate; scaling not entirely concealing the derm, very dark brown, a small patch of white scales before elytral interval 4 just behind the middle; setae numerous; punctures oval, very close together. Elytra: broadly rounded from base to apex, more than half as broad as long (3.75:6.00), scaling predominantly very dark brown, first interval with yellowish-brown scales forming a distinct vitta in the basal two-thirds, most numerous in the basal half, intervals 2-5 each with an irregular vitta of white and yellowish-brown scales before the middle, the pale vittae combined forming an irregular, oblique, pale area on each elytron; stria 10 hardly distinguishable beyond the hind coxae, the first punctures in the other rows not touching the base; row 7 beginning most posteriorly. Sternum: with the metasternum broadly concave, the base carinate, posterior margin broadly emarginate. Venter: with the first ventrite slightly more than twice as long as 5, the median plate coarsely punctate at the sides, shallowly impressed in the middle; 5 twice as broad as long. Length, 3.2 mm; breadth, 1.5 mm.

Described from one male specimen (holotype) from the Pacific Entomological Survey collection, from *Sida,* elevation 1800 feet, April 22, 1931, G. Le Bronnec and H. Tauraa.

This is the darkest colored species described herein, and can easily be distinguished from the others for that reason. In abraded specimens it might be rather difficult to distinguish from *A. umbrosa,* but a comparison of the hind femora should separate the species.

14. Ampagia umbrosa, new species (figs. 2, *m*; 4, *n*).

Female. Derm shiny black, antennae, tibiae and tarsi reddish-brown; scaling variegated white and very dark brown (almost black), a yellowish stripe along the middle of the elytra.

Head: with two rows of erect, white setae around the eyes. Rostrum: almost impunctate in the middle half along the median line, the punctures successively larger and closer laterally. Antennae: with the scape slightly longer than the first two funicular segments; funicular segment 1 slightly longer than 2 plus 3, 2 equal to 3 plus 4; club equal to the preceding 4 segments together. Prothorax: distinctly broader than long (3.5:3.0), base distinctly sinuate, scaling predominantly white, the white scales enclosing irregular patches of very dark brown scales; setae rather numerous and more or less evenly distributed but somewhat more numerous towards the apex; punctures large, oval and closely placed. Elytra: broadly rounded from base to apex, two-thirds as wide

as long, base sinuate and emarginate at the scutellum; scales along interval one mainly yellowish, a few yellowish scales scattered on intervals 2 and 3 near the base, a large, conspicuous, irregular, oblique patch of white scales from the humeri to near the suture at about the middle of the elytra, elsewhere with irregular patches of very dark brown and white scales; stria 10 indistinct above ventrite 1, but deeper caudad and traceable to ventrite 5, the first punctures in the other rows at a distance from the base of the elytra, row 7 beginning more posteriorly than the others. Sternum with the metasternum deeply concave, basal margin cariniform, hind margin deeply and broadly emarginate. Venter: with the first ventrite more than twice as long as 5 (1.75:0.75); 5 almost flat, twice as wide as long. Length, 3.2 mm; breadth, 1.6 mm.

Described from one female specimen (holotype) from the Pacific Entomological Survey collection from *Hibiscus tiliaceus,* near the center of the island, elevation 1,665 feet, September 28, 1929, A. M. Adamson.

This is one of the prettiest species known to me. It is very closely related to *A. pulla* but may be separated from that species by its more precipitous hind angle of the posterior femora and its paler scaling.

15. Ampagia cana, new species (figs. 2, *n*; 4, *o*).

Derm shiny black, in some places diluted with red, antennae, tibiae, and tarsi reddish-brown; scaling predominantly greyish-white interspersed with patches of brown scales, elytra with a yellowish-brown, median vitta.

Head: densely clothed with whitish and yellowish-brown scales, two rows of erect, white setae around the eyes. Rostrum: coarsely and confluently punctate in the male; punctures scattered in the female. Antennae: with the scape as long as the first two funicular segments; funicular segment 1 longer than 2 plus 3, 2 about as long as 3 plus 4; club about as long as the preceding four segments together. Prothorax: broader than long (3.00:2.75), base sinuate; scales large, rounded, not completely concealing the derm, predominantly white with scattered brown ones; punctures elongate-oval. Elytra: broadly rounded from base to apex, more than three-fifths as broad as long (3.5:5.0), scaling white, with irregular patches of brown scales, a patch of brown scales within the basal fourth on interval 3, an irregular, oblique, brown patch at the top of the declivity, interval one with yellowish scales in the basal two-thirds; stria 10 distinct beyond the hind coxa, striae 6-9 not reaching the base of the elytra, 7 beginning most posteriorly, 1-5 beginning at the base, distinctly striate between the punctures. Sternum: with the metasternum deeply and broadly concave, the base carinate, apex deeply, broadly emarginate. Venter: with the median plate of the first ventrite convex in the female, slightly concave in the middle in the male, twice as long as 5; 5 twice as broad as long, flat in the female, hardly convex in the male. Length, 2.2-2.8 mm; breadth, 1.1-1.4 mm.

Described from four specimens from the Pacific Entomological Survey collection as follows: one female (holotype) from *Canthium oderatum,* elevation 1700 feet (no definite locality given), April 23, 1931, Le Bronnec and H. Tauraa; two females from near the center

of the island, elevation 1,665 feet, from *Hibiscus tiliaceus,* September 28, 1929, A. M. Adamson; one male from the same locality, elevation 1400 feet, no host recorded, September 28, 1929, A. M. Adamson.

This species is rather similar to *A. umbrosa,* but it can easily be distinguished from that species by the very precipitous hind angle of its posterior femora and its pale scaling.

UAPOU

16. Ampagia plumbea, new species (figs. 3, *a*; 4, *p*).

Male. Derm reddish-brown to black, antennae and tarsi paler; scaling predominantly greyish with patches of yellowish-brown and dark brown scales.

Head: coarsely punctate between the eyes, elsewhere coarsely reticulate and with scattered, shallow punctures, the scaling dense, yellowish. Rostrum: coarsely and confluently punctate throughout, with an irregular, median carina. Antennae: with the scape slightly longer than funicular segments 1 plus 2; funicular segment 1 about as long as 2 plus 3, 2 longer than 3 plus 4, 4 subquadrate, 5, 6, and 7 transverse; club as long as the preceding four segments together. Prothorax: much broader than long (3.00:2.50), base slightly sinuate, the scaling predominantly greyish with patches of white and brownish scales; the disk somewhat flattened in the basal half, punctures sparse, small and round in the basal half, progressively larger and more elongate-oval in the apical half. Elytra: broadly rounded from base to before the apex where the outline is interrupted, the apex slightly rounded, more than three-fifths as broad as long (3.25:5.00); the scaling predominantly greyish and yellowish-white with scattered patches of brownish scales, a basal patch of dark brown scales on intervals 2 and 3, some irregular patches of brown scales above and on the declivity, scales in the basal half small, very dense and with a yellowish cast; the first interval slightly more elevated than the others; stria 10 indistinct beyond the posterior margin of the hind coxa, first puncture of row 9 near the base, 8 joins 7 at a short distance from the base, the striae distinct between the punctures near the base in rows 1-6. Sternum: with the metasternum rather deeply concave. Venter: with the first ventrite about twice as long as 5, the median plate broadly concave, rather coarsely punctured towards the sides, the punctures bearing white, scale-like setae; 5 convex, less than twice as broad as long. Length, 2.8 mm; breadth, 1.3 mm.

Described from one male specimen (holotype) from the Pacific Entomological Survey collection, Hakahetau Valley, elevation 500 feet, December 13, 1929, R. R. Whitten.

The hind angle of the posterior femora of this species is less precipitous than any of the other Marquesan species.

HIVAOA

17. Ampagia vulgaris, new species (figs. 3, *b*; 4, *q*).

Female. Derm reddish-black to black, antennae and tarsi paler; the scaling predominantly grey with patches of yellowish and dark brown scales.

Head: shallowly, longitudinally, confluently punctate between the eyes, elsewhere with sparse, well separated punctures; interocular area with numerous, erect, white setae. Rostrum: with few minute punctures along the median line, the punctures larger laterally. Antennae: with the scape slightly longer than the first two funicular segments together; funicular segment 1 as long as 2 plus 3, 2 about as long as 3 plus 4, segment 4, subquadrate, the following segments slightly broader, segment 7 transverse; club as long as the preceding 4 segments together. Prothorax: distinctly broader than long (2.75:2.25), base practically truncate; scaling predominantly greyish with patches of yellowish-brown scales, with numerous rather short, stout setae; punctures small, elongate-oval, the basal half with few small punctures. Elytra: broadly rounded from base to apex, almost three fifths as broad as long (3:00:4.75), scaling predominantly greyish, some dark brown scales in the basal fourth of interval 3, an irregular, oblique patch of dark brown scales from the top of the declivity laterally to about the fourth interval; setae rather stout and conspicuous; stria 10 obliterated beyond the middle of the hind coxa, 9 with large, round punctures from the base to above the middle of the hind coxa, thence deeply impressed to the apex, first puncture in row 8 near the base of the elytra, first punctures in rows 6 and 7 distant from the base, striae 1-5 distinctly impressed to the base. Sternum: with the metasternum not carinate. Venter: with the first ventrite almost three times as long as 5, the median plate convex; 5 almost flat, twice as broad as long. Length, 2.6 mm; breadth 1.2 mm.

Described from one female specimen (holotype) from the Pacific Entomological Survey collection, beaten from *Weinmannia parviflora,* Teava uhia i te Kohu, elevation 2100 feet, February 15, 1930, E. P. Mumford and A. M. Adamson.

Similar to *A. plumbea* but the hind femora are more precipitous and not so rounded off.

FATUHIVA

18. Ampagia concinna, new species (figs. 1, *a*; 3, *g*; 4, *v*).

Male. Derm shiny black, antennae, tibiae and tarsi reddish-brown; scaling predominantly yellowish-brown variegated with white and dark brown scales.

Head: with scattered punctures, rough between the eyes, the scales rounded, yellowish; erect, white setae on the forehead, between and around the eyes. Rostrum: coarsely and longitudinally, confluently punctate, carinate in the basal two thirds. Antennae: with the scape as long as the first two funicular segments; first funicular segment as long as 2 plus 3, 2 as long as 3 plus 4, 6 subquadrate, 7 transverse; club as long as the preceding 4 segments together. Prothorax: much broader than long (3.75:3.00), base slightly sinuate; dorsal outline evenly, strongly convex; the scaling predominantly yellowish-brown, the scales rounded and not very close, an arcuate line of white scales from the third elytral interval converging anteriorly; thickly and rather evenly set with erect setae that give a bristled appearance when viewed from the side; punctures rounded, larger towards the apex. Elytra: rounded in the basal third, thence narrowed in a slightly arcuate line to before the broadly rounded apices, four sevenths as broad as long, the suture is rather high with the sides sloping rather abruptly downward and outwards giving a sub-A-shaped appearance when viewed from behind; scaling predominantly yellowish-brown with some scattered patches of

white scales, an outstanding, irregular, variable, oblique line of dark brown scales from the top of the declivity to the basal third; intervals each with a row of conspicuous, erect setae; stria 10 terminating at the hind coxa, the other striae not beginning at the base of the elytra, the first puncture of row 5 farthest from the base. Sternum: with the metasternum broadly concave, the hind margin deeply emarginate. Venter: with ventrite 1 twice as long as 5, the median plate concave; ventrite 5 convex, less than twice as wide as long. Length, 3.6 mm; breadth, 1.6 mm.

Described from one male specimen (holotype) from the Pacific Entomological Survey collection, beaten from *Metrosideros collina* Teavaipuhiau, elevation 2,150 feet, August 25, 1930, G. Le Bronnec.

This is a distinct species; the "sharp" elytra are unusual. The setae are very conspicuous, especially on the prothorax. These characters and its reddish or yellowish-brown scaling will easily distinguish this species. It is the largest Marquesan species.

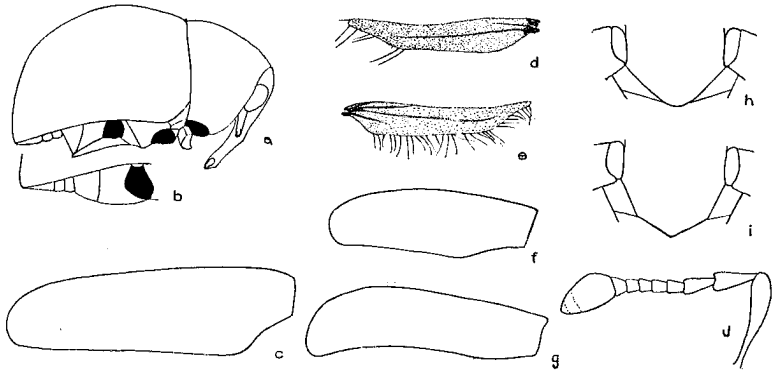

FIGURE 1.—*a*, side view of *Apagia concinna; b*, side view of ventrites of *Ampagioides sulcatus; c*, fore femur of *Ampagia signifera; d*, wing of *Ampagioides discretus; e*, wing of *Ampagia maculata; f*, fore femur of *Ampagioides lineatus; g*, fore femur of *Ampagioides pulcher; h*, ventral plate of *Ampagia similis; i*, ventral plate of *Ampagia signifera; j*, antenna of *Ampagioides discretus.*

MANGAREVAN SPECIES

The Mangareva Islands are almost without an existing, endemic, terrestrial flora and fauna. Beds of fossil land shells of peculiar species indicate the former existence of a rich fauna. I collected on all of the principal islands of the group and found some of the sole survivors of the land flora and fauna that had escaped the ravages

of fire, cultivation and goat grazing, confined to a few rocky ledges high on the cliffs on the south side of Mount Mokoto on the main island of Mangareva. Among the few endemic insects I collected there was the following species:

19. Ampagia tesselata, new species (figs. 3, *k*; 4, *r*).

Derm shiny black, antennae and tarsi paler; scaling predominantly white or pale yellow variegated with dark brown scales.

Head: reticulate, with few punctures except between the eyes. Rostrum: shallowly, though coarsely and confluently punctate in the male, in the female shining and with scattered punctures. Antennae: with the scape equal in length to the first two funicular segments together; first funicular segment equal to 2 and 3 together, 2 equal to 3 and 4 together, club equal to 3-7 inclusive. Prothorax: slightly broader than long, the disk with the scaling usually dark brown outlined by the pale scales of the sides, with a vague, irregular, pale, median vitta; the scales rounded, smooth, flat or impressed along the middle; the punctures close, oval, rather large and evenly distributed. Elytra: about three-fifths as broad as long (3.50:5.25), broadly rounded from base to apex; the scaling generally pale yellowish with scattered patches of dark brown scales sometimes forming a patch in the basal fourth over intervals 2 and 3; stria 10 terminating at the hind coxa; the punctures of rows 6, 7, and 8 larger than usual, all the rows beginning at the base of the elytra. Sternum: with the metasternum impressed near the base. Venter: with the first ventrite twice as long as 5, the median plate convex in the female, flattened or concave in the male; 5 twice as broad as long, convex in the male, flat in the female. Length, 3-3.2 mm; breadth, 1.4-1.6 mm.

Described from three specimens collected by me as follows: a male, (holotype), and a female from *Asplenium nidus* (bird nest fern) and a male beaten from dead fei leaves, south side of Mount Mokoto, elevation 1000 feet, June 2, 1934.

One of the male specimens is much paler than the other two specimens and does not have the elytra so distinctly tesselated.

The striae are much coarser on this species than on any of the other species described herein. Those of the disk are distinctly impressed to the base and give the intervals a slightly convex appearance. The posterior femora are more rounded off in the hind angle than any of the other species from southeastern Polynesia.

Genus AMPAGIOIDES, new genus

Closely allied to the genus *Ampagia* Pascoe, from which it differs principally as follows: the hind femora are not broad and dilated, with the posterior angle very precipitous; there is no median area on the first ventrite bounded by impressed lines from the coxae converging at the middle of the posterior margin; ventrite 1 does not

overhang ventrite 2; ventrite 2 is inclined but never nearly vertical in the middle; the front femora are comparatively more slender and are not angulate near the base (except partially in the Tahitian *Ampagioides lineatus,* new species, see fig. 1, c, f, g). In most other characters the genera are remarkably similar.

Antennae with the first two funicular segments elongate, the first longer than the second, segments 3-7 short and subequal in length. Prothorax subconical, broader than long; mesosternal receptacle cavernous, the intercoxal process projecting below the coxae. Scutellum distinct, as in *Ampagia* Pascoe.. Densely clothed with scales above. The wings degenerate, not functionable for flight. All femora edentate and grooved for the reception of the tibiae. First ventrite on a lower plane than the other ventrites and about twice as long as the metasternum; ventrites 3 and 4 very narrow.

Genotype: *Ampagioides discretus,* new species.

The members of this genus not only superficially resemble the genus *Ampagia* Pascoe, but their habits are similar. They are associated with dead twigs, branches and fern fronds in which their larvae undoubtedly develop.

Check List

1. **Ampagioides discretus,** new species.
   Rapa.
2. **Ampagioides sulcatus,** new species.
   Rapa.
3. **Ampagioides guttatus,** new species.
   Tubuai, Austral Islands.
4. **Ampagioides constrictus,** new species.
   Rurutu, Austral Islands.
5. **Ampagioides pulcher,** new species.
   Rurutu, Austral Islands.
6. **Ampagioides lineatus,** new species.
   Tahiti, Society Islands.

Rapa

Key to Species

A. Elytra with the suture not deeply sulcate; scaling normally almost concealing the suture.....**A. discretus**

B. Elytra with the suture deeply sulcate at least in the basal third; scaling not covering the suture except on the declivity.....**A. sulcatus**

1. Ampagioides discretus, new species (figs. 1, *j, d*; 3, *l*; 4, *s*).

Derm shiny black, antennae and tarsi paler; scaling predominantly pale brownish-yellow, with the disk of the prothorax dark, outlined by pale scales, the sides of the elytra with large patches, or tesselated with smaller patches, of very dark brown scales interspersed with brown scales.

Head: distinctly, shallowly, sub-confluently punctate, densely clothed with dark and paler brown scales, the interocular area bristling with white, erect oval scales and squamiform setae. Rostrum: in the male coarsely and confluently punctate throughout; in the female shining and with small punctures. Antennae: with the scape longer than funicular segments 1 and 2 together; funicular segment 1 about as long as 2 plus 3; club as long as the preceding four segments together. Prothorax: subconical, nearly straight on the sides, base practically truncate or just perceptibly sinuate, distinctly broader than long (2.5:2.0), the dorsal outline evenly convex from base to apex; the scaling not dense, the scales forming a variable dark brown area on the disk that may reach from base to apex and have a scattering of pale brown or white scales, or there may be no distinct area of dark scales, the scales on the sides of disk generally paler, those on the sides sparser, whitish and brown; setae prostrate excepting a few inclined ones near the apex; punctures oval and not very close together, less numerous on the sides. Elytra: less than two thirds as broad as long, the lateral outline broadly rounded from base to apex; the scaling concealing the derm, predominantly yellowish and white, variegated with brown to very dark brown scales, the posterior two thirds with the very dark brown scales predominating and taken as a whole usually forming a definite dark area; the setae of the intervals prostrate, those of the strial punctures squamiform; stria 10 usually indistinct above ventrites 1-3 but deeper behind to the apex, 6 and 7 beginning more posteriorly than the others, 1-5 rather deeply impressed at the base. Legs: with the femora not densely covered with scales, with a few elongate-oval yellowish scales, and numerous, fine, erect setae. Venter: with the first ventrite twice as long as 5, in the male broadly concave in the middle, in the female convex; the sides with pale oval scales, the central area with small punctures bearing simple and plumose setae; 2 with scattered pale scales; 3 and 4 with small, lateral patches of scales; 5 twice as broad as long, slightly convex in the male, flat in the female, the punctures bearing oval scales and fine setae. Length, normal specimens, 2.6-3.2 mm; breadth, 1.3-1.6 mm; abnormal specimens: length, 4.4 mm; breadth, 2.6 mm.

Described from a series of five normal specimens and two veritable giants, all except one collected by me, as follows: one male (holotype) beaten from dead branches on the south slope of Mount Tepiahu, elevation 400-600 feet, July 20, 1934; one male and one female beaten from dead branches in the southeast valley of Mount Ororangi, elevation 600-700 feet, July 3; one male in dead *Cyathea* fronds at an elevation between 900-1200 feet on the northeast ridge of Mangaoa Peak, July 4; one male beaten from *Hibiscus tiliaceus,* on the shore of Ahurei Bay near Area, elevation 10 feet, July 30; one giant male from dead *Cyathea* fronds at an elevation between

800-1,000 feet on the northeast ridge of Mangaoa Peak, July 4; one giant female collected by C. M. Cooke, Jr., near Ahurei, elevation 10 feet, July 29.

This species is related to *A. sulcatus* and can be distinguished from that species by its non-sulcate elytra. These two species are the only ones that do not have the femora very densely covered with scales and can, therefore, be immediately separated from all the other species.

In the field I had considered the two giant specimens to represent a distinct species. There are, however, no characters other than size to separate them. The two large specimens may be nutritional-giants and may perhaps be a variety in the evolutionary process of segregating from the type. I believe there may be a "copulatory-selectivity" among the sizes that would ultimately, through natural selection, lead to the separation of the two size groups into distinct species. This condition is comparable with that of *Ampagia maculata ingens,* but the processes of evolution have evidently not been acting long enough to form distinct, visible characters of subspecific value.

2. Ampagioides sulcatus, new species (figs. 3, *h*; 4, *y*).

Female. Derm black, shining, with the antennae and tarsi reddish-brown; scaling predominantly yellowish-brown variegated with irregular patches of chocolate-brown scales, the scales of the elytra closely packed and normally completely concealing the derm, those on the prothorax much larger and not concealing the derm.

Head: densely clothed with oval, brownish scales, the interocular area bristling with erect, pale scales and setae; punctures rather large, rounded and shallow. Rostrum: rather densely and evenly set with small punctures. Antennae: with the scape about as long as the first three funicular segments; funicular segment 1 as long as 2 plus 3; club equal in length to the preceding four segments together. Prothorax: subconical and almost straight on the sides, distinctly wider than long (about 4.25:3.50), base truncate; the scaling not dense, rather pale brownish-yellow; the setae inconspicuous except for two patches of inclined ones near the apex; punctuation rather even, the punctures oval and not very close, tending to become longitudinally confluent on the sides, an impunctate, elongate-oval area in the middle of the disk. Elytra: about five sevenths as broad as long, with the lateral outline rounded near the base and thence rather straightly narrowing to before the broadly rounded apex; the scaling very dense making the intervals appear convex; each interval bearing a row of prostrate setae that are difficult to see; the strial punctures bearing prostrate scale-like setae; the first intervals conjointly sulcate along the suture, the width of the sulcus at the base about half the width of the first intervals, but narrowing posteriorly and obsolete on the declivity where the scales completely conceal the suture; the striae distinct throughout and with no isolated punctures near the base, stria 10 almost obliterated between about the middle of the first

and fourth ventrites, striae 6, 7 and 8 beginning behind the base and there almost confluent. Legs: with the femora with pale, prostrate, elongate scales, and fine erect setae; tibiae with few scales and numerous erect setae. Venter: with the first ventrite convex but impressed down the middle, twice as long as 5, with rounded punctures bearing plumose setae in the middle and pale, oval scales on the sides; ventrites 3 and 4 with a small lateral patch of pale scales, ventrite 5 flattened, twice as broad as long; punctures oval, close, bearing pale, erect and suberect scales and fine setae. Length, 4 mm; breadth, 2 mm.

Described from one female specimen (holotype) collected by me while beating the dead branches of shrubs at an elevation between 700 and 800 feet at Maitua, July 2, 1934.

This species is unique in that it is the only species known to me in this genus or in the genus *Ampagia* Pascoe, that has the elytra sulcate along the suture. It can, therefore, be easily separated from all the other species.

Austral Islands

Tubuai

3. **Ampagioides guttatus,** new species (figs. 3, *i*; 4, *x*).

Male. Derm piceous to black, elytra not very shiny, prothorax smooth and shining; scaling brown, yellowish and whitish, the posterior three-fifths of the elytra very dark brown variegated with yellowish-brown, a common conspicuous, dark brown V in the middle of the disk from base to before the middle, this bounded by a large, outstanding whitish patch.

Head: densely clothed with golden brown scales, the interocular area with prostrate oval scales and numerous erect squamiform setae. Rostrum: coarsely and confluently punctate throughout, carinate in the basal half. Antennae: with the scape as long as funicular segments 1 plus 2; first funicular segment longer than 2 plus 3; club about as long as the preceding 5 segments together. Prothorax: distinctly broader than long (3.75:3.25), the base truncate, sides slightly arcuate from base to apex, the dorsal outline slightly gibbous in the basal half and flattened in the apical half; the scales large but not completely concealing the derm, those in the middle of the disk forming a darker, vase-shaped area from base to apex bounded by pale yellow and white scales, those on the sides flavous to golden-brown; the setae prostrate and inconspicuous except for a few inclined ones near the apex; the punctures large and close, smaller near the base and larger and closer in the apical half, those of the apical half tending to form rows with some tendency to become longitudinally sub-confluent. Elytra: two thirds as broad as long, expanded in about the basal fifth in a line continuous with that of the prothorax, thence slightly arcuate to before the broadly rounded apex; scaling dense and normally concealing the derm; an outstanding common V of dark brown scales that begins at the base of interval 3 and ends on the outer half of interval 1 within the basal fifth, the scales enclosed by the V paler brown, those bounding it pale yellow and white forming a conspicuous, oblique, white area extending over intervals 1 to 5 from about the basal third to the base;

the scales in the posterior two thirds dark brown tesselated with patches of golden-brown scales, the scales on the outer three intervals paler; setae inconspicuous; stria 10 evidently obliterated behind the posterior coxa, striae 8, 7, and 6 beginning successively more distant from the base of the elytra; the derm not smooth and shining, but alutaceous and with minute folds. Legs: with the femora densely clothed with pale yellow and white scales and prostrate or slightly inclined setae. Venter: with the first ventrite twice as long as 5, broadly impressed in the middle and there with minute punctures bearing plumose setae, the sides with pale scales; 2 densely clothed with pale scales; 3 with small lateral patches of pale scales; 4 with a row of pale scales in the lateral thirds; 5 twice as broad as long, convex, with pale scales and fine, erect setae.

The female differs from the male as follows: rostrum shining, with small punctures, the median line almost impunctate; the dorsal outline of the prothorax more evenly rounded and not so conspicuously rounded in the basal half and flattened in the apical half; the marking of the elytra differs in that there is not such a distinct V of dark brown scales at the base and the bounding area of white and pale yellow scales extends as a fascia from about the middle to the humeri forming a common V of white scales, the declivity has a number of small patches of white scales, interspersed among the brown scales; the first ventrite is flattened in the middle and shallowly impressed; ventrite 4 has a small patch of scales at the sides only. Length, 3.2 mm; breadth, 1.5 mm.

Described from two specimens collected by me as follows: one male (holotype) beaten from dead branches on Mount Taita, elevation 1,000 feet, August 15, 1934; one female beaten from a species of *Celastraceae* on the southwest ridge of Mount Taita, elevation 1200 feet, August 20, 1934.

I had at first supposed that the female represented another species. I can, however, find no fundamental characters to specifically separate her from the male. Offhand the color pattern seems quite different, but upon close examination it is found to be basically the same. Both of the specimens are in excellent condition and represent a pretty species. The form of the prothorax somewhat resembles that of *Ampagioides pulcher,* and it is possible that the ancestral stock of the two species was related. They are, however, most distinct, one from the other.

RURUTU

Key to Species

A. Prothorax conspicuously constricted on the sides before the apex as in fig. 3, *j*.....**A. constrictus**

B. Prothorax with the subapical constriction not prominent, most evident across the dorsum and not continued conspicuously down the sides (fig. 3, *c*).....**A. pulcher**

4. Ampagioides constrictus, new species (figs. 3, *j*; 4, *w*).

Male. Derm not very shiny, piceous to black diluted with red, the appendages paler; scaling predominantly whitish and pale yellowish variegated with patches of darker and brown scales.

Head: densely clothed with yellowish scales, the interocular area with erect setae and prostrate scales. Rostrum: coarsely and confluently punctate throughout, sub-carinate in the basal half. Antennae: with the scape slightly longer than the first two funicular segments together; funicular segment 1 about as long as 2 plus 3; club as long as the preceding 4 segments together. Prothorax: slightly wider than long, tumid and broadly arcuate in the basal two thirds and conspicuously constricted before the apex, the base truncate; the scaling not completely concealing the derm, predominantly pale yellow and white, the scales on the middle of the disk darker; punctures rather small and oval, closer on the sides. Elytra: about three fifths as broad as long, broadly arcuate from base to apex; the scaling normally concealing the derm, predominantly white and pale yellow, some darker scales on the disk form a vague V from the third interval to the suture at about the basal third, tesselated with dark brown scales on the posterior half; the setae not very conspicuous; stria 10 hardly impressed behind the posterior coxa, striae 1-8 not deeply impressed between the punctures, striae 6 and 7 beginning farther from the base than the others. Legs: with the femora densely clothed with scales and squamiform setae. Venter: with the first ventrite twice as long as five, broadly concave in the middle, and there with minute punctures that bear pale, oval scales; 2 with elongate, white, oval scales and squamiform setae; 3 and 4 with lateral patches of white scales; 5 twice as broad as long, slightly convex, rather densely clothed with white scales and setae. Lenth, 3.2 mm; breadth, 1.4 mm.

Described from one male specimen (holotype) collected by me while beating *Metrosideros* on the southwest slope of Mount Manureva, elevation 1100 feet, August 29, 1934.

A very distinct species and the only species in this genus or the genus *Ampagia* Pascoe, known to me that has the prothorax conspicuously constricted before the apex. This species and *Ampagioides pulcher* are obviously related and have come from the same ancestral stock. They may be distinguished by the characters given in the key.

5. Ampagioides pulcher, new species (figs. 3, *c*; 4, *u*).

Male. Derm shiny black diluted with red, antennae and tarsi paler; scaling predominantly brownish-yellow with a large, conspicuous, median, dark brown area on the prothorax and on the sides of the posterior half of the elytra.

Head: densely clothed with brown scales, those around the eyes paler, the interocular area with pale erect setae and pale, oval, prostrate scales. Rostrum: coarsely and confluently punctate throughout. Antennae: with the scape about as long as the first two funicular segments together; funicular segment 1 about as long as 2 plus 3; club about as long as the preceding 5 segments together. Prothorax: much broader than long (2.5:2.0), the base slightly sinuate, the sides broadly rounded in the basal half and almost straight in the apical half but slightly constricted before the apex across the dorsum; the scaling not completely concealing the derm, the scales on the disk forming a large, conspicuous,

dark, golden-brown, vase-shaped area that extends from base to apex; the scales on the sides yellow with a few scattered white ones; the setae prostrate except for some suberect ones near the apex; punctures rather small and oval. Elytra: about three fourths as broad as long, broadly arcuate from base to apex; the scaling dense, concealing the derm except along the striae, predominantly brownish-yellow with irregular very dark brown areas interspersed with brown scales in the posterior half; intervals with a row of inclined, white or brown, rather conspicuous setae; the strial punctures giving rise to prostrate, squamiform setae; stria 10 not distinct behind the posterior coxa, 8 and 9 deeply impressed near the base, 6 and 7 beginning farther from the base than the others. Legs: with the femora densely clothed with scales and inclined squamiform setae. Venter: with the first ventrite broadly and shallowly concave in the middle and there with minute punctures bearing fine, erect setae, the sides with prostrate, pale scales, twice as long as 5; 2 with pale, oval, prostrate scales and slanting squamiform setae; 3 with a small patch of pale scales at the sides; 4 with similar lateral patches of scales but with a single row of erect scales or squamiform setae; 5 twice as broad as long, slightly convex, with small punctures bearing narrow, slanting scales and fine, erect setae. Length, 2.2 mm; breadth, 1.1 mm.

Described from one male specimen (holotype) collected by me at an elevation of 1100 feet on the southeast slope of Mount Manureva, August 30, 1934, while beating shrubs.

This species is the only one of the genus that has a complete row of scales across the fourth ventrite.

Society Islands

TAHITI

6 Ampagioides lineatus, new species (figs. 1, *f*; 3, *d*; 4, *t*).

Female. Derm shiny, reddish-brown with the prothorax piceous; scaling predominantly brownish-yellow with patches of whitish and dark brown scales.

Head: densely clothed with yellowish scales, those between and around the eyes paler, those on the forehead darker; a row of erect white setae around the eyes; coarsely punctate between the eyes, elsewhere reticulate and almost impunctate. Rostrum: coarsely punctate, with large, yellowish scales and stout, erect, white setae at the base; elsewhere very shiny and with scattered punctures that tend to become longitudinally confluent on the sides, with few scattered punctures along the median line. Antennae: with the scape slightly longer than the first three funicular segments together; funicular segment 1 as long as 2 plus 3; 2 almost as long as 3 plus 4; club equal in length to the preceding 5 segments together. Prothorax: subconical, almost straight on the sides, somewhat broader than long (2.5:2.25), apex broadly rounded, base slightly sinuate, disk slightly flattened before the apex; the scales predominantly whitish and yellowish, forming a rather irregular, median, pale vitta bounded by darker scales; closely punctate throughout, the punctures much smaller near the base than apex especially on the sides, tending to become slightly longitudinally confluent on the sides, near the apex. Elytra: roundly narrowing from base to apex, slightly less than three fourths as broad as long (3.0:4.5), the scales on interval 3 dark

brown within the basal fourth, interval 2 with a small patch of similar dark brown scales at the basal fourth, and with a narrow vitta of white scales on the lateral half at about the middle, intervals 1-3 with the scaling dark brown from this vitta posteriorly, with a few scattered paler scales, interval 7 with darker scales near the middle; stria 10 distinct to the third ventrite; the punctures in rows 8 and 9 beginning at the base of the elytra, the first puncture of row 7 distant from the base, at about the third puncture of row 8, the first puncture of row 6 at about the second puncture of row 5, the first four rows distinctly striate and punctate at the base. Legs: with the femora densely clothed with scales. Sternum: with the metasternum deeply emarginate, coarsely reticulate, with long, plumose setae except in the middle. Venter: with the first ventrite about twice as long as 5, very convex, slightly impressed at the base where it is most coarsely punctate, elsewhere finely reticulate and with very small, scattered, setiferous punctures; 2 steep in the middle, with large, oval, white scales; 5 less than twice as broad as long (1.75:.75), nearly flat, with some small punctures bearing white setae and hairs. Length, 2.6 mm; breadth, 1.2 mm.

Described from one female specimen (holotype) collected by me while beating shrubs at an elevation between 3,500 and 4,500 feet on Mount Aorai Trail, September 13, 1934.

This species is unlike the others of the genus in that the fore femora are somewhat angulate near the base on the inner side but not so much as in *Ampagia* Pascoe. The striae also resemble some of the members of that genus. The characters of the abdomen and hind femora, however, place it in the genus *Ampagioides*. It is not closely related to any of the other species known to me.

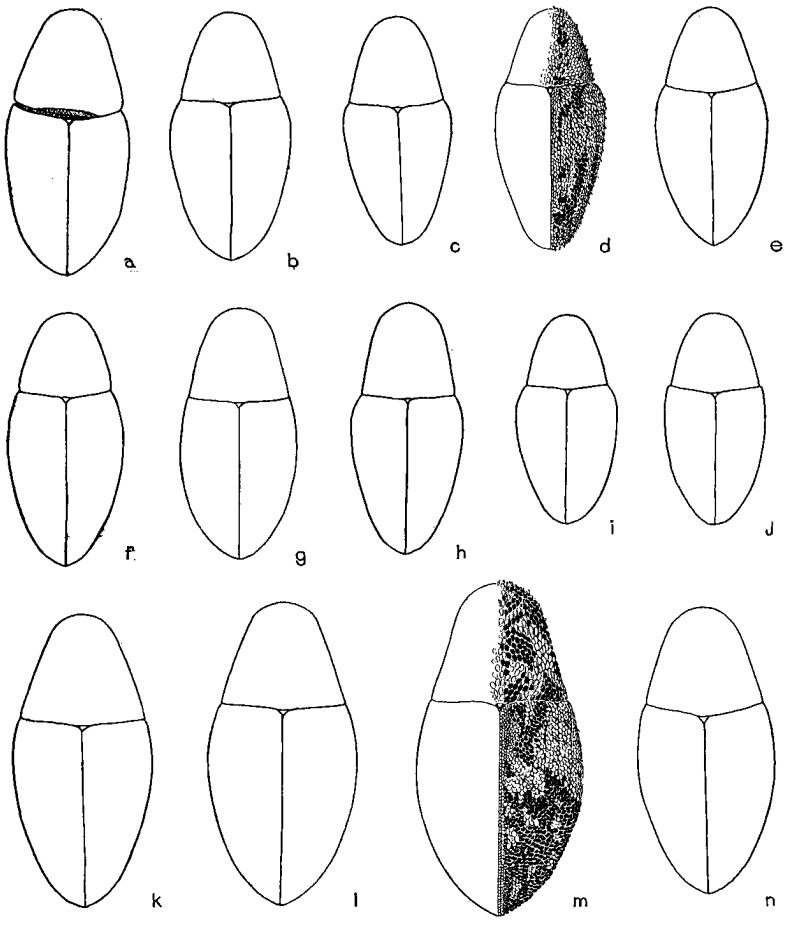

FIGURE 2.—Lateral outlines of new species of Ampagia: a, *Ampagia vannifera;* b, *A. ovata;* c, *A. pallida;* d, *A. bella;* e, *A. conspersa;* f, *A. pustulata;* g, *A. similis;* h, *A. infumata;* i, *A. debilis;* j, *A. brevis;* k, *A. signifera;* l, *A. pulla;* m, *A. umbrosa;* n, *A. cana.*

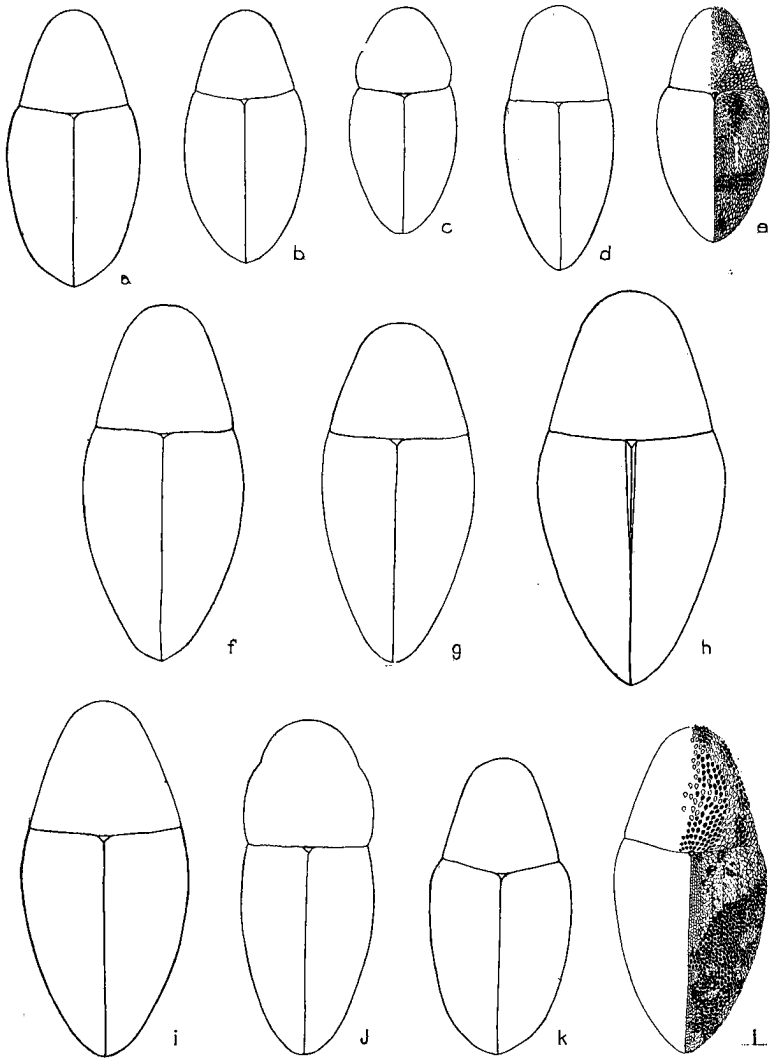

FIGURE 3.—Lateral outlines of new species of *Ampagia* and *Ampagioides:* a, *Ampagia plumbea;* b, *Ampagia vulgaris;* c, *Ampagioides pulcher;* d, *Ampagioides lineatus;* e, *Ampagia maculata;* f, *Ampagia maculata ingens;* g, *Ampagia concinna;* h, *Ampagioides sulcatus;* i, *Ampagioides guttatus;* j. *Ampagioides constrictus;* k, *Ampagia tesselata;* l, *Ampagioides discretus.*

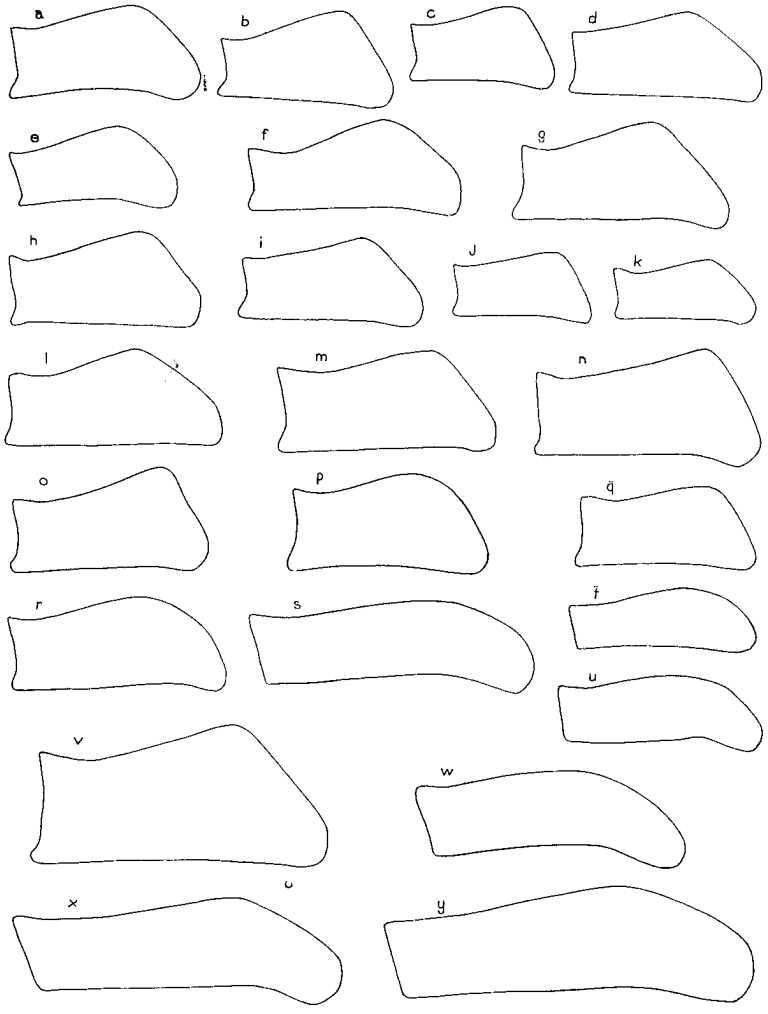

FIGURE 4.—Outlines of hind femora of new species of *Ampagia* and *Ampagioides:* a, *Ampagia vannifera;* b, *Ampagia ovata;* c, *Ampagia pallida;* d, *Ampogia bella;* e, *Ampagia conspersa;* f, *Ampagia pustulata;* g, *Ampagia signifera;* h, *Ampagia similis;* i, *Ampagia infumata;* j, *Ampagia debilis;* k, *Ampagia brevis;* l, *Ampagia maculata;* m, *Ampagia pulla;* n, *Ampagia umbrosa;* o, *Ampagia cana;* p, *Ampagia plumbea;* q, *Ampagia vulgaris;* r, *Ampagia tesselata;* s, *Ampagioides discretus;* t, *Ampagioides lineatus;* u, *Ampagioides pulcher;* v, *Ampagia concinna;* w, *Ampagioides constrictus;* x, *Ampagioides guttatus;* y, *Ampagioides sulcatus.*