



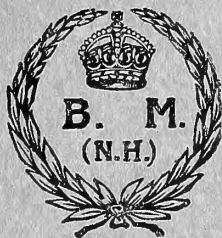
BRITISH MUSEUM (NATURAL HISTORY)

INSECTS OF SAMOA
AND OTHER SAMOAN TERRESTRIAL
ARTHROPODA

PART II. HEMIPTERA
FASC. 5. Pp. 193-228
MIRIDAE and ANTHOCORIDAE

By HARRY H. KNIGHT, Ph.D.
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WITH NINE TEXT-FIGURES



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INSECTS OF SAMOA

AND OTHER SAMOAN TERRESTRIAL ARTHROPODA

Although a monograph, or series of papers, dealing comprehensively with the land arthropod fauna of any group of islands in the South Pacific may be expected to yield valuable results, in connection with distribution, modification due to isolation, and other problems, no such work is at present in existence. In order in some measure to remedy this deficiency, and in view of benefits directly accruing to the National Collections, the Trustees of the British Museum have undertaken the publication of an account of the Insects and other Terrestrial Arthropoda collected in the Samoan Islands, in 1924-1925, by Professor P. A. Buxton and Mr. G. H. E. Hopkins, during the Expedition of the London School of Hygiene and Tropical Medicine to the South Pacific. Advantage has been taken of the opportunity thus afforded, to make the studies as complete as possible by including in them all Samoan material of the groups concerned in both the British Museum (Natural History) and (by courtesy of the authorities of that institution) the Bishop Museum, Honolulu.

It is not intended that contributors to the text shall be confined to the Museum Staff or to any one nation, but, so far as possible, the assistance of the leading authorities on all groups to be dealt with has been obtained.

The work is divided into nine "Parts" (see p. 3 of wrapper), of which each is subdivided into "Fascicles." Each of the latter, which appear as ready in any order, consists of one or more contributions. On the completion of the systematic portion of the work it is intended to issue a general survey (Part IX), summarising the whole and drawing from it such conclusions as may be warranted.

A list of Fascicles already issued will be found on pp. 3 and 4 of this wrapper.

N. D. RILEY,
Keeper of Entomology.

BRITISH MUSEUM (NATURAL HISTORY).
CROMWELL ROAD, S.W.7.

INSECTS OF SAMOA

PART II. FASC. 5

HEMIPTERA—MIRIDAE AND ANTHOCORIDAE.

By HARRY H. KNIGHT, Ph.D., Iowa State College, Ames, Iowa.

(With 9 Text-figures.)

THE present fascicle, dealing with the families Miridae and Anthocoridae, completes the study of Samoan Hemiptera. In previous papers, by Prof. Teiso Esaki (pp. 67-80) and Mr. W. E. China (pp. 81-162), there are recorded seventy species of Heteroptera, representing fifty-one genera. The present paper includes thirty-two Samoan species of Miridae, representing twenty genera, and one species of Anthocoridae. This number, added to the previous total compiled by Mr. China, makes 103 species of Hemiptera, representing seventy-two genera definitely recorded from the Samoan Islands.

It is interesting to note that the Miridae constitute approximately one-third of the total number of species, a percentage very similar to that found in the Palaearctic and Nearctic faunal regions.

It may be noticed that the writer has deviated from his usual style in descriptions, so that this fascicle may conform more closely with the form used by Mr. China in Fascicle 3. Again, it may also be of interest to future students of Miridae to know that the writer has not had the benefit of studying type material of species described from the Pacific regions, but has been forced to rely upon the literature for knowledge of species which might be expected in the Samoan Islands. Many hours have been spent in studying descriptions of all the species recorded from the Pacific faunas with a view to detecting any described forms occurring in Samoa; and how well we have succeeded only future workers can determine. In the course of this study a check list of Miridae of the world has been compiled as a necessary basis for checking species and names. The writer is indebted to Mr. W. E. China for his assistance in checking

determinations of the few named species that were recognized from Samoa, where these species could be compared with named material in the British Museum.

A study of the Miridae serves to strengthen the ideas advanced by Mr. China regarding the origin and distribution of the present hemipterous fauna of Samoa; namely, it has obviously been derived from the Austro-Oriental sub-region. To facilitate comparison and for the completion of the tables found in pp. 87-88, a table has been worked out showing the world-wide specific distribution of the Samoan genera of Miridae (Table I).

Specific endemism among the Miridae appears to be even higher than in other families of Hemiptera. Of thirty-three species of Miridae and Anthorididae known from Samoa, twenty-four species and five genera are described as new. The known distribution of Samoan species is shown in Table II.

A comparison with the known Miridae of Fiji may be of interest. Kirkaldy (1908) listed ten species of Miridae from Fiji, representing as many different genera. Only four additional species have been recorded since, but no doubt the small number of Miridae known from Fiji is due to lack of attention in collecting these forms. Of fourteen species of Miridae recorded from the Fiji Islands, only four are recognized among the Samoan material. These species are: *Creontiades pacificus* (Stål), *Nesodaphne knowlesi* Kirk., *Felisacus filicicola* (Kirk.), and *Cyrtorhinus riveti* Cheesman.

TABLE I.—SHOWING THE REGIONAL DISTRIBUTION IN NUMBERS OF SPECIES OF THE GENERA OCCURRING IN SAMOA.

	HAWAIIAN.	AUSTRALASIAN.				ORIENTAL.				AFRICAN.		PALAEARCTIC.			AMERICAN.		
		NEW ZEALAND.	AUSTRALIAN.	POLYNESIAN.	AUSTRO-ORIENTAL.	MALAYSIAN.	PHILIPPINE.	INDO-CHINESE.	INDIAN.	CEYLONESE.	ETHIOPIAN.	SEYCHELLES & MASCARENE.	EUROPEAN & SIBERIAN.	MEDITERRANEAN & EREMIAN.	MANCHURIAN & JAPANESE.	NEARCTIC.	NEOTROPICAL.
<i>Campylomma</i>				3	1	1		1		3		3	5	1	1		
<i>Torma</i>				1						1							
<i>Psallus</i>	3	1	1				3	1	1	3	1	37	39		46	5	
<i>Felisacus</i>		1	1	1	2	1	2		1		2						
<i>Onconotellus</i>				1													
<i>Fulvius</i>	1	1	2	7	3	2	1			3	3		2		2	15	

TABLE I.—continued.

	HAWAIIAN.	AUSTRALASIAN.				ORIENTAL.					AFRICAN.		PALAEARCTIC.			AMERICAN		
		NEW ZEALAND.	AUSTRALIAN.	POLYNESIAN.	AUSTRO-ORIENTAL.	MALAYSIAN.	PHILIPPINE.	INDO-CHINESE.	INDIAN.	CEYLONESE.	ETHIOPIAN.	SEYHELLES & MASCARENE.	EUROPEAN & SIBERIAN.	MEDITERRANEAN & EREMIAN.	MANCHURIAN & JAPANESE.	NEARCTIC.	NEOTROPICAL.	CHILIAN.
<i>Cyrtorhinus</i>	1*			4			3			1		4	1	1	7	1		
<i>Aretas</i>				1					1		1							
<i>Orthotylellus</i>				1														
<i>Pseudoneoborus</i>				1														
<i>Pilophorus</i>				1	2	1	1	1				5	3	2	28			
<i>Trigonotylus</i>				1			1			1	1	4	2	1	4			
<i>Nesodaphne</i>				1														
<i>Guisardus</i>				3				1										
<i>Hyalopeplus</i>	1			1	2	2	2	1	4	2	2							
<i>Creontiades</i>			4	4	4	5		1	3	2	12	2	3		3	2		
<i>Sidnia</i>			1	1														
<i>Lygus</i> (typ. gen.)		3	2	20	25	32	4	22	30	8	41	4	29	11	5	29	38	
<i>Plesiolygus</i>				1														
<i>Paurolygus</i>				1														

* Introduced.

TABLE II.—KNOWN DISTRIBUTION OF SAMOAN SPECIES.

	SAVAIL.	UPOLU.	TUTULA.	MANUA IS.	FLUJ IS.	OTHER LOCALITIES.
Family MIRIDAE.						
1. <i>Campylomma annulatus</i> , sp. n.	×					India, Formosa, Australia.
2. <i>Campylomma livida</i> Reut.		×				
3. <i>Torma samoanus</i> , sp. n.			×			
4. <i>Psallus samoanus</i> , sp. n.		×	×			
5. <i>Psallus rubromaculosus</i> , sp. n.		×				
6. <i>Felisacus filicicola</i> Kirk.			×	×	×	
7. <i>Onconotellus buxtoni</i> , gen. n., sp. n.		×				
8. <i>Fulvius samoanus</i> , sp. n.		×				
9. <i>Fulvius buxtoni</i> , sp. n.		×	×			
10. <i>Cyrtorhinus riveti</i> Cheesm.		×	×		×	

TABLE II.—*continued.*

	SAVAL.	UFOLU.	TUTUILA.	MANUA IS.	FUJI IS.	OTHER LOCALITIES.
Family MIRIDAE.						
11. <i>Cyrtorhinus lividipennis</i> Reut.		×				Great Nicobars, Formosa, Java, Sumatra, Ceylon, Burma.
12. <i>Cyrtorhinus fulvus</i> , sp. n.	×	×	×			
13. <i>Aretas sanguinarius rubroscutellatus</i> , var. n.		×		×		
14. <i>Orthotylellus samoanus</i> , gen. n., sp. n. . <i>Orthotylellus samoanus</i> var. <i>nigrellus</i> , n.		×	×	×		
15. <i>Pseudoneoborus samoanus</i> , gen. n., sp. n.		×				
16. <i>Pilophorus samoanus</i> , sp. n.		×				
17. <i>Trigonotylus brevipes</i> Reut.			×	×		World-wide distribution.
18. <i>Nesodaphne knowlesi</i> Kirk.			×		×	Society Is.
19. <i>Guisardus samoanus</i> , sp. n.			×			
20. <i>Hyalopeplus samoanus</i> , sp. n.		×	×			
21. <i>Creontiades stramineus</i> Walk.	×	×	×	×		India, Ceylon, Java, For- mosa, Pacific Islands.
22. <i>Creontiades samoanus</i> , sp. n.		×	×			Savage Is.
<i>Sidnia kellersi</i> , sp. n.						Savage Is.
23. <i>Lygus samoanus</i> , sp. n.	×					
24. <i>Lygus swezeyi</i> , sp. n.			×			
25. <i>Lygus buxtoni</i> , sp. n.		×	×			
26. <i>Lygus finis</i>		×	×			Savage Is.
27. <i>Lygus kellersi</i> , sp. n.			×			
28. <i>Lygus bryani</i> , sp. n.	×					
29. <i>Lygus hopkinsi</i> , sp. n.	×					
30. <i>Lygus oceanicus</i> Popp.	×	×	×			New Hebrides
31. <i>Plesiolygus punctatus</i> , gen. n., sp. n. .	×		×			
32. <i>Paurolygus scutatus</i> , gen. n., sp. n. .		×				
Family ANTHOCORIDAE.						
33. <i>Lasiochilus fruhstorferi</i> Popp.		×				Lombok.

Family MIRIDAE.

Subfamily PHYLINAE.

1. *Campylomma annulatus*, sp. n.

Distinguished from all known species by the annulate second antennal segment.

Colour.—Rather uniformly pale yellowish, hemielytra pale translucent, clothed with black pubescent hairs. Antennae conspicuously banded with black: segment I yellowish, with two black rings; segment II more black than pale, narrow base and apex, band at middle of basal half, and a wider band at start of second half, pale yellowish; III, broken. Apex of cuneus, spot at inner angle bordering membrane, and small spot at tip of clavus, black. Membrane pale, veins yellowish, an inverted half-moon shaped fuscous mark each side touching margin, also dusky within apex of larger areoles. Legs pale yellowish, tibial spines and spot at base of each, black; also four or five setigerous black spots near apices of femora.

Structure.—♀. Length 2.64 mm., width 1.17 mm. Head: width .70 mm., vertex .42 mm. Rostrum (imbedded) apparently attaining the hind coxae. Antennae: segment I, length .173 mm.; II, .65 mm., more slender than segment I, tapering to more slender at base; III, broken. Pronotum: length .43 mm., width at base .95 mm. Body clothed with simple, black pubescent hairs, intermixed with some finer pale pubescence on head, a conspicuous black bristle each side at anterior angle of pronotum.

Samoa:—Savaii: ♀ specimen (holotype), Safune, 4.v.1924 (Bryan).

2. *Campylomma livida* Reuter.

Campylomma livida Reuter, *Ent. Tidskr.*, v, p. 199, 1884.

Campylomma livida Reuter, *Öfv. Finska Vet.-Soc., Förh.*, xlvii, No. 5, p. 14, 1905.

Campylomma livida Distant, *Fauna Brit. India, Rhyn.* II, p. 483, fig. 316, 1904.

Campylomma livida Poppius, *Tijdschr. v. Ent.*, lvi (Suppl.), p. 170, 1914.

Upolu:—Apia: 1 specimen, 12.ix.1923 (Swezey & Wilder).

Originally described from Bengal, but since recorded from Victoria, Australia (Reuter, 1905), and from Formosa (Poppius, 1914).

3. *Torma samoanus*, sp. n.

Allied to *T. colae* China, but differs in the shorter second antennal segment, which is only equal to width of vertex (♀); antennae uniformly pale and scutellum entirely fuscous.

Colour.—Fuscous black, basal edge of vertex, antennae, rostrum, and legs except hind femora, pale yellowish; scutellum uniformly brownish-black, lateral margins of mesoscutum yellowish. Hemielytra pale translucent, tip of clavus, apex of embolium, and apical half of cuneus, blackish. Membrane clear, veins pale, cubitus fuscous about apex of larger areole.

Structure.—♀. Length 1.94 mm., width .97 mm. Head: width .58 mm., vertex .346 mm. Rostrum (imbedded) apparently extending upon hind coxae. Antennae: segment I, length .11 mm.; II, .346 mm., equal in thickness to segment I but more slender toward base; III, .20 mm.; IV, .216 mm. Pronotum: length .346 mm., width at base .86 mm. Clothed with fine, short, pale to yellowish pubescence. Hind femora large, length .65 mm., width .346 mm., spines of hind tibiae prominent, length of spines about twice the width of tibia.

Tutuila: ♀ (holotype), Leone Road, 24.viii.1926 (Judd).

4. *Psallus samoanus*, sp. n.

Distinguished from known species by the rugulose punctate dorsal surface and the subinflated character of the hind femora.

Colour.—Dark reddish to fusco-blackish, antennae except apically, tibiae except spots, tarsi and tips of femora pale yellowish; tibial spines black, arising from dark reddish or black spots; membrane uniformly fuscous, veins paler, reddish about smaller areole.

Structure.—♂. Length 2.8 mm., width 1.25 mm. Head: width .75 mm., vertex .26 mm., base sharply margined but not carinate; eyes large, finely pubescent, curving back and slightly overhanging anterior angles of pronotum, extending below to ventral side of head, front margins subparallel, forming a quadrangular frons to a point above base of antennae; frons evenly convex, tylus rather small, forming a nearly even contour with juga, facial angle slightly acute. Antennae: segment I, length .26 mm., just equal to vertex, width .086 mm.; II, 1.14 mm., thickness .08 mm., nearly equal to segment I but tapering to more slender at base, clothed with short, firm pubescence;

III, imperfect. Pronotum : length .60 mm., width at base 1.06 mm., moderately convex, lateral margins subcarinate, straight, anterior angles sloping low and beneath the eyes ; disc, scutellum and clavus finely but distinctly rugulose punctate. Scutellum moderately convex, mesoscutum exposed. Dorsum clothed with yellowish simple pubescence, intermixed on clavus and corium with silvery sericeous pubescence. Hemelytra sloping down at the sides, as viewed from the side the embolar margin slightly arcuate ; cuneus and membrane strongly deflexed, areoles normal. Legs of normal length, hind femora subinflated on middle, but apex compressed as viewed from above. Arolia and genital claspers in form rather similar to known species of *Psallus*.

♀. Length 2.7 mm., width 1.8 mm. ; embolar margins more strongly arcuate than in the male. Head : width .74 mm., vertex .30 mm. Antennae : segment I, length .26 mm. ; II, 1.12 mm., more slender on basal half than in the male, pale, apical one-third blackish ; III, .44 mm., slender, fuscous ; IV, .39 mm., fuscous. Pronotum : length .65 mm., width at base 1.17 mm. Form of legs, pubescence, and rugulose-punctate character of the dorsum very similar to that of the male ; colour of head, pronotum and legs more brownish.

Tutuila :—Leone Road : 1 specimen (holotype), from *Eugenia*, 7.ix.1923 (Swezey & Wilder) ; 1 specimen, 21.vi.1918, alt. 1,070 ft., eastern end of island ; 1 specimen, 30.vi.1918, alt. 900–1,200 ft., centre of island (Kellers) ; Pago Pago : 1 specimen, 30.ix.1923 (Swezey & Wilder).

Upolu :—Tuaefu : Sliding Rock, 1 specimen, 16.ix.1923 (Swezey & Wilder) ; Malololelei : 2,000 ft., 1 specimen, vi.1924, 1 specimen, 19.vi.1924, 1 specimen, 30.xi.1924.

5. *Psallus rubromaculosus*, sp. n.

Distinguished from known species by the red spotted appearance of the dorsal aspect ; size and colour suggestive of a *Parthenicus*, but the head is shorter and broader, also the first antennal segment is very short.

Colour.—Pale yellowish and marked with red ; pronotum, scutellum and hemelytra rather evenly but sparsely spotted with moderately large, bright red hypodermal spots ; cuneus pale on basal half and chiefly red on distal half ; head pale above, eyes and lower face red ; antennae yellowish, segment I reddish, last two segments dusky yellow to fuscous. Membrane fuscous, narrowly bordering apex of cuneus and a spot behind this near margin, pale. Sides of thorax and venter reddish to fuscous, lower margin of propleura and

a longitudinal stripe parallel with and just beneath dorsal margin, red. Legs yellowish and marked with red; hind femora reddish on apical half, ventral surface with two small but distinct subapical white spots from which hairs probably arise on perfect specimens; tibial spines yellowish, a rather large red spot at base of each, spots on one row of spines confluent with spots on adjoining row of spines; tarsi pale, tips fuscous.

Structure.—♀. Length 2.4 mm., width 1.4 mm., ovate, embolar margins arcuate. Head: width .73 mm., vertex .36 mm.; position vertical, vertex evenly convex, forming an arcuate line with contour of eyes; tylus narrowed to a point at apex. Rostrum, length 1.17 mm., extending to fifth ventral segment. Antennae: segment I, length .216 mm., width .08 mm.; II, 1.03 mm., slender, slightly thicker apically, clothed with fine, short pubescence; III, .47 mm., slender; IV, broken. Pronotum: length .43 mm., width at base 1.08 mm.; disc rather flat, calli evident as a slight transverse swelling; scutellum flat, scarcely rising above level of clavus, mesoscutum rather broadly exposed, distinctly flattened. Cuneus and membrane sharply deflexed, cuneus slightly longer than wide at base. Hind femora distinctly saltatorial, length 1.08 mm., width across middle .39 mm. Tibial spines prominent, their length about twice the thickness of tibia. Body clothed with pale yellowish pubescence, probably (specimen rubbed) intermixed on dorsum with sericeous hairs.

Upolu:—Tuaefu: one specimen, 16.ix.1923 (Swezey & Wilder).

Subfamily DICYPHINAE.

6. *Felisacus filicicola* (Kirkaldy).

Hyaloscytus elegantulus, var. *filicicola* Kirkaldy, *Proc. Linn. Soc. New South Wales*, XXXIII, part 2, p. 377, 1908.

Tutuila:—Pago Pago: 1 specimen, 24.ix.1923, 5 specimens, 9.ix.1923 (Swezey & Wilder); 1 specimen, 16.ix.1923 (Bryan); 1 specimen, alt. 1,000 ft., 13.x.1918 (Kellers); Amauli: 5 specimens, 5.ix.1923; Leone Road: 2 specimens, 18.ix.1923 (Swezey & Wilder).

Manua Is.:—Tau: 11 specimens, 17.ix.1923; 1 specimen, 27.ix.1923 (Swezey & Wilder).

Savaii:—3 specimens, 13.v.1924 (Bryan).

Described from Fiji as a variety of *F. elegantulus* Reut., but the writer considers it to be a distinct species.

Onconotellus, gen. n.

Refers to subfamily Dicyphinae, but distinguished from all known genera by the hood-like elevation of anterior lobe of pronotum and by the false vein in the wing membrane (Fig. 1). Head vertical, inserted in prothorax to a point where the eyes touch the collar; a very shallow impressed line on median line of vertex. Stricture of collar extending from coxal cleft dorsally to point at side of the projecting triangle at top of collar. Thorax thickly clothed with erect, white pilose hairs. Antennae slender, length of segment I not exceeding width of head. Wing membrane with a false vein extending posteriorly from tip of smaller areole (Fig. 1). Arolia (Fig. 1) rather similar to those found in *Dicyphus*, arising from inner basal angle of claws and converging at tips, the claws evidently not capable of being spread to a wide angle.

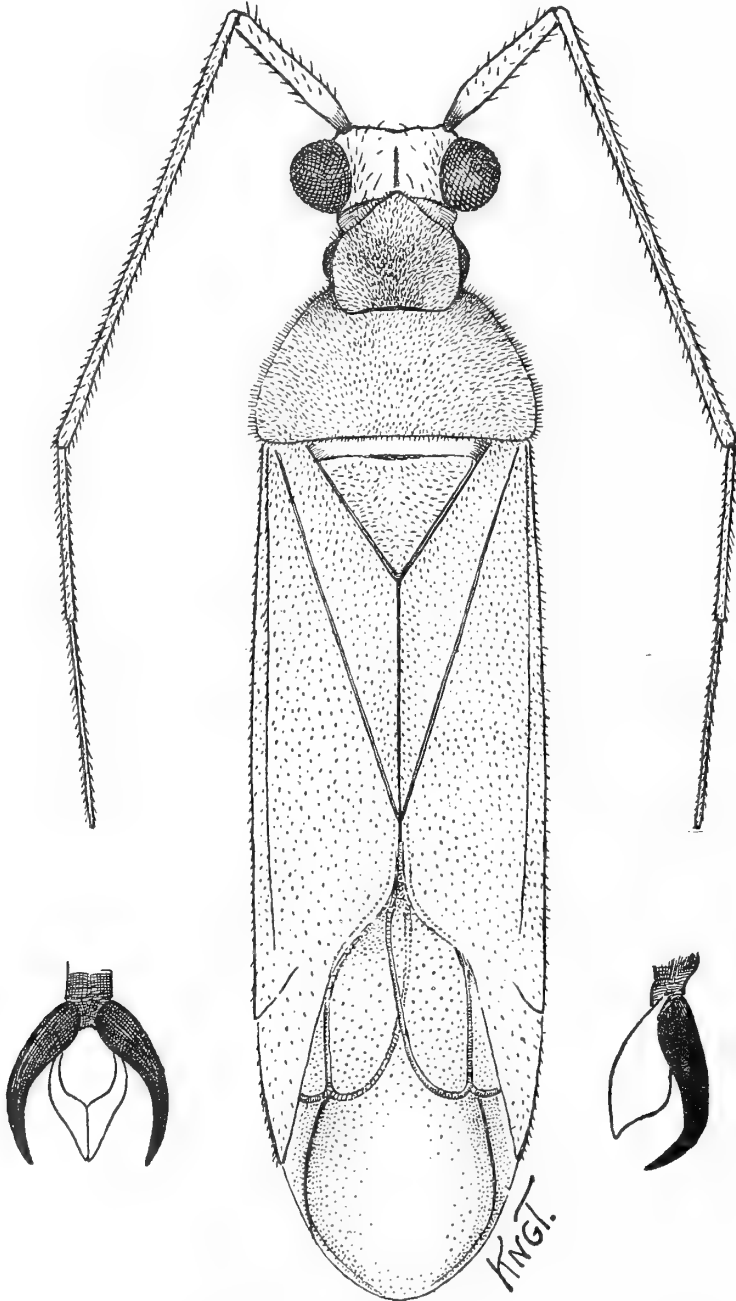
Genotype:—*Onconotellus buxtoni*, sp. n.

7. *Onconotellus buxtoni*, sp. n. (Text-fig. 1).

Colour.—Brown to reddish, head darker brown, strongly shining; antennae reddish to fuscous brown, segment IV fuscous. Hemielytra pale translucent, clavus fuscous to brownish translucent. Membrane and veins pale fuscous, paler on disc and darker on each side of the false vein. Legs pale yellowish-brown, translucent, coxae reddish, hind tibiae reddish at base, tips of tarsi fuscous. Venter more reddish-brown than thorax.

Structure.—Total length 4.4 mm. Head: width .74 mm., vertex .33 mm.; position vertical, vertex with fine, longitudinally impressed line on middle. Rostrum, length 1.3 mm., attaining posterior margins of hind coxae. Tylus narrow, confluent at base with the frons, its apex directed slightly backward, attaining a point slightly behind a line drawn perpendicular to front margins of eyes. Antennae: segment I, length .65 mm.; II, 1.73 mm.; III, .65 mm.; IV, .74 mm. Pronotum: length .91 mm., width at base 1.02 mm.; anterior lobe set off by a constriction, its disc convex, representing the calli, shallowly longitudinally sulcated on middle, apex angular and covering the collar; thickly clothed with erect, pale hairs. Scutellum moderately and evenly convex (its base and the mesoscutum destroyed by the pin, but reconstructed in the drawing), clothed with hairs like the pronotum. Hemielytra finely pubescent, with longer hairs on clavus, each pubescent hair arising from a minute puncture, these latter more clearly evident owing to the translucent texture of the hemi-

elytra. Membrane remarkable for the false vein extending beyond apex of smaller areole ; apparently a calloused line impressed on dorsal surface and



TEXT-FIG. 1.—*Onconotellus buxtoni*, n. g., n. sp. ; inset, claws and arolia in full view and side view.

convex beneath. Legs slender, femora thicker near base and tapering to more slender at apex, posterior margins bearing fine but rather long hairs; tibiae with very slender spines, only poorly distinguished from hairs.

Upolu :—Malololelei : ♀ specimen (type), 2,000 ft., 25.xi.1924 (Buxton & Hopkins).

Subfamily CYLAPINAE.

8. *Fulvius samoanus*, sp. n.

In the key to *Fulvius* by Poppius (1910) this species runs to *F. oxycarenoides* Reut., but differs at least in the dark brown femora and dusky brown tibiae.

Colour.—Dark brown to blackish, apical one-fourth of second antennal segment and apex of embolium white, basal one-fourth of hemielytra pale. Legs dark brown, tibiae and tarsi pale dusky brown. Membrane and veins uniformly light fuscous. The white spot at apex of embolium extends for half its width upon outer apical angle of corium, but scarcely penetrates beyond fracture at base of cuneus.

Structure.—♂. Length 3.2 mm., width 1.04 mm. Head : width .52 mm., vertex .26 mm. ; length of head in front of eyes .24 mm. ; vertex with a slight depression on median line. Rostrum (imbedded on card) can be traced as far as hind margins of posterior coxae ; first segment reaching to pronotal collar. Antennae : segment I, length .34 mm., extending for half its length beyond tip of tylus, thickness .086 mm., more slender at base ; II, .86 mm., slightly thicker on apical half ; III, .36 mm., slender ; IV, broken. Pronotum : length along median line .41 mm., width at base .87 mm. ; basal margin transverse for half its width, then curving sharply posteriorly to each basal angle ; calli large, distinctly swollen, separated by an impressed median line. Dorsum clothed with very fine short pubescence.

Upolu :—Malololelei : 2 specimens (including holotype), iv.1924 (Buxton & Hopkins) ; 1 specimen, vi.1924, 1 specimen, 28.vi.1924.

9. *Fulvius buxtoni*, sp. n.

Allied to *F. variegatus* Popp. and very similar in coloration, but differs in essential details ; distinguished by the shorter rostrum, which does not extend beyond third ventral segment, also differs in the shorter second antennal segment (♀), which does not equal basal width of pronotum.

Colour.—Chiefly brownish-black and varied with pale; head pale above with two longitudinal fuscous stripes, one each side of the pale median line; pale stripes of head extend upon and for full length of prothorax, except the narrower median stripe, which stops short of basal margin but appears again as a spot on mesoscutum. Antennae pale, segment I fuscous toward base, last two segments dark fuscous. Hemielytra blackish, base of clavus and basal half of corium and embolium pale, apex of embolium and tip of cuneus white. Membrane uniformly fuscous, veins darker, a clear spot bordering the white tip of cuneus. Legs pale yellowish, femora brownish-black, apices pale to red.

Structure.—♀. Length 3.1 mm., width 1.12 mm. Head: width across eyes .51 mm., vertex (interocular space) .26 mm.; length .56 mm., from anterior margins of eyes to apex .26 mm. Rostrum, length 1.71 mm.; segment I, .40 mm., just attaining posterior margins of eyes; II, .46 mm.; III, .51 mm.; IV, .34 mm.; not attaining posterior margin of third ventral segment. Antennae: segment I, length .34 mm.; II, .78 mm., slender, slightly thicker apically; III, broken. Pronotum: length along median line .43 mm.; width at base .91 mm.; swelling of calli extending nearly to base of disc, an impressed longitudinal line separating calli. Dorsum clothed with fine, short, sericeous pubescence; femora with five or six rather long white hairs projecting ventrally from distal half.

Upolu:—Malololelei: 1 specimen (holotype), 25.vi.1924, alt. 2,000 ft. (Buxton & Hopkins).

Tutuila:—Pago Pago: 18.iv.1924 (Bryan).

Subfamily ORTHOTYLINAE.

10. *Cyrtorhinus riveti* Cheesman.

Cyrtorhinus riveti Cheesman, *Ann. Mag. Nat. Hist.*, (9) 19, p. 94, (fig.) 1927.

Upolu:—Apia: 7 specimens, 12.ix.1923, on Bermuda grass (Swezey & Wilder).

Tutuila:—Apia: 2 specimens, 20.ix.1923; Amauli: 2 specimens, 6.ix.1923; Pago Pago: 1 specimen, 4.ix.1923 (Swezey & Wilder).

Described from Tahiti, where it was "taken among *Tradescantia* at the borders of streams."

11. *Cyrtorhinus lividipennis* Reuter.

Cyrtorhinus lividipennis Reuter, *Ent. Tidskr.*, V, p. 199, 1884.

Cyrtorhinus lividipennis Poppius, *Archiv. f. Naturgesch.*, 80, 1914, Abt. A, p. 65, 1915.

Upolu :—Apia : 1 specimen, 12.ix.1923, "*Sporobolus*" (Swezey & Wilder).

Originally described from Great Nicobars; reported by Poppius from Formosa and Java, and by Distant from Ceylon and Burma. I have also identified this species from Sumatra (E. Jacobsen).

12. *Cyrtorhinus fulvus*, sp. n.

Suggestive of *C. lividipennis* Reut., but distinguished by the longer second antennal segment and the more tumid black calli; pale areas chiefly fulvous.

Colour.—Fulvous, antennae except apex of segment I, head except on vertex and genae and lora, pronotum except median ray on basal half of disc, mesonotum more or less, and median line of scutellum, black. Legs fulvous, fuscous on knees. Membrane pale to dusky, cubitus fuscous.

Structure.—♂. Length 3.4 mm., width 1.04 mm. Head: width .80 mm., vertex .34 mm. Rostrum, length 1.12 mm., reaching to middle of intermediate coxae. Antennae: segment I, length .52 mm., thicker near middle and tapering to more slender at apex; II, 1.51 mm., slender, length almost twice width of pronotum at base; III, 1.38 mm.; IV, .69 mm.; pale pubescent. Pronotum: length .43 mm., width at base .87 mm.; lateral margins sulcate, calli strongly convex. Body clothed with fine, inconspicuous pale pubescence.

♀. Length 3.8 mm., width 1.3 mm. Head: width .78 mm., vertex .38 mm. Antennae: segment I, length .44 mm.; II, 1.27 mm.; III, 1.18 mm.; IV, shrivelled. Pronotum: length .50 mm., width at base 1.04 mm. Slightly more robust than the male, but very similar in structure and coloration.

Samoa :—1 specimen, iii–viii.1921 (O'Connor).

Upolu :—Malololelei : ♀ specimen (allotype), 2,000 ft., 1.v.1924; 1 specimen, 15.iv.1924 (Buxton & Hopkins); Apia : 1 specimen, 28.x.1923 (Armstrong).

Savaii :—Safune : Lower Forest, 1,000–2,000 ft., ♂ specimen (holotype), 11.v.1924 (Bryan); Lower Forest, 1,000–2,000 ft., 8 specimens, 4.v.1924, 3 specimens, 5.v.1924; Lowlands to 1,000 ft., 10 specimens, 1.v.1924; Rain Forest, 2,000–4,000 ft., 1 specimen, 2.v.1924, 1 specimen, 12.v.1924 (Bryan).

Tutuila :—Leone Road, Taro, 7.ix.1923 (Swezey & Wilder).

13. *Aretas sanguinarius*, var. *rubroscutellatus*, var. n.

Structurally very similar to *A. sanguinarius* Distant, but differs at least in having red on the scutellum.

Colour.—♀. Colour pattern differs from typical *sanguinarius* in having the scutellum largely red; a few specimens transversely red on basal half of pronotum, although interrupted on median line; sometimes the pale areas on pronotal disc and clavus becoming dusky brown.

Structure.—♀. Length 4.1 mm., width 1.7 mm. Head: width .76 mm., vertex .41 mm. Rostrum, length 1.43 mm., extending to near hind margins of posterior coxae. Antennae: segment I, length .65 mm., greatest thickness (.15 mm.) near base and tapering to smaller at apex; II, 2.07 mm., cylindrical, slender; III, .82 mm.; IV, broken. Pronotum: length .47 mm., width at base 1.21 mm. Arolia converge at tips, thus referring the genus to subfamily Orthotylinae.

Upolu:—Malololelei: 3 specimens, including type, 20.vi.1924 (Armstrong); 1 specimen, 2,000 ft., 20.vi.1924, 1 specimen, 2,000 ft., 25.xi.1924 (Buxton & Hopkins); Tuaeфу: 1 specimen, 16.ix.1923, Sliding Rock (Swezey & Wilder).

Manua Is.:—Tau: 1 specimen, 27.ix.1923 (Swezey & Wilder).

Orthotylellus, gen. n.

Allied to *Orthotylus* Fieb., as indicated by the converging arolia and form of body; distinguished from this and allied genera by the somewhat flattened, subconical head, pubescent eyes, long rostrum, and in having two types of pubescence on the dorsum.

Arolia erect, converging apically as in *Orthotylus*; head subconical, flattened beneath, bucculae very slender, rostrum long, attaining eighth ventral segment; eyes appearing granulate, distinctly pubescent, extending well around lower side of head; first antennal segment very short, vertex broad, ecarinate, but strongly margined; pronotum twice as wide as long, only slightly convex, collar absent, calli scarcely evident. Dorsal surface impunctate; clothed with two types of pubescence. Legs average, femora not thickened, tibia slender, with two rows of strong spines.

Genotype: *Orthotylellus samoanus*, sp. nov.

14. *Orthotylellus samoanus*, sp. nov.

Colour.—Dark reddish, shading to fuscous; second antennal segment, rostrum except apex, and legs except hind femora, pale yellowish or slightly tinged with reddish; outer margin of cuneus and more broadly toward apex, opaque creamy white; membrane rather uniformly pale fuscous, veins red.

Structure.—♀. Length 2.4 mm., width 1.08 mm. Head: width .64 mm., vertex .34 mm., bluntly conical, but flattened on under side, vertex roundly convex, base ecarinate, sharply and deeply margined where anterior margin of pronotum fits closely; eyes finely pubescent, raised very slightly above arcuate contour of frons, juga rather full and prominent, thus carrying out the conical effect; tylus without suture at base, moderately arcuate as viewed from the side; buccula very narrow, appearing as a slender pale line. Rostrum, length 1.25 mm., reaching upon eighth ventral segment. Antennae: segment I, length .15 mm., thickness .07 mm.; II, .65 mm., slender, slightly thicker apically, but scarcely attaining thickness of segment I; III, .39 mm., slender; IV, .28 mm., slender. Pronotum: length .35 mm., width at base .87 mm., disc only slightly convex, lateral margins nearly straight, ecarinate, calli scarcely evident. Mesoscutum moderately exposed, scutellum nearly flat. Hemelytra with embolar margins slightly arcuate; cuneus nearly triangular, normally deflexed. Legs rather short, hind femora .78 mm. in length, width .22 mm.; hind tibia 1.08 mm., slender, two rows of distinct spines, without spots, length of spines slightly greater than diameter of tibia. Body clothed with fine pale yellowish pubescence, rather sparsely intermixed on dorsum with closely appressed, golden, sericeous pubescence.

Tutuila:—Pago Pago: 1 specimen (holotype), 24.ix.1923; 1 specimen, 20.ix.1923, 1 specimen, 1.x.1923 (Swezey & Wilder).

Manua Is.:—Tau: 2 specimens, 27.ix.1923 (Swezey & Wilder).

14A. *Orthotylellus samoanus*, var. *nigrellus*, var. n.

Apparently not differing structurally from typical *samoanus*, but colour rather uniformly dark fuscous to black; second antennal segment except base and apex, and tibia, pale or slightly dusky.

Upolu:—Malololelei: 1 specimen (type), 19.vi.1924, alt. 2,000 ft. (Buxton & Hopkins); Mulifanua: 1 specimen, 16.vii.1929 (Wilder).

Pseudoneoborus, gen. n.

Form suggestive of *Neoborus* Dist., but evidently not closely related, as the arolia are erect and convergent at tips (Fig. 3), thus referring the genus to sub-family Orthotylinæ; genital claspers (Fig. 3) distinctive, but closely related forms unknown to the author. Head short, vertical, tylus small, not separated at base by a suture; vertex and frons flat, sharply declivitous, the ecarinate sharp basal edge of vertex overlaps on anterior edge of pronotum; eyes prominent, coarsely faceted. Pronotum without distinct collar, disc moderately and evenly convex, calli not evident, lateral margins carinate, edges narrowly reflexed. Dorsal surface, including front of head, rather coarsely and evenly punctate, a pubescent hair arising from each puncture. Cuneus short, wider at base than long.

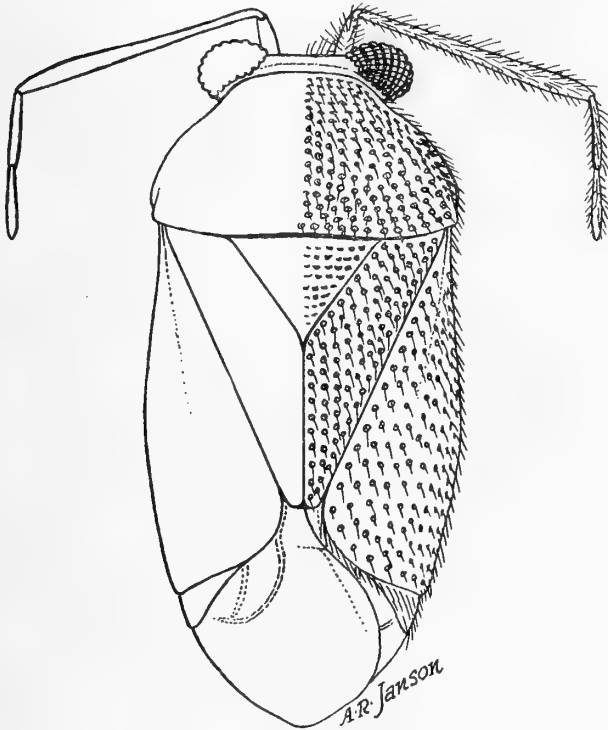
Genotype:—*Pseudoneoborus samoanus*, sp. n.

15. *Pseudoneoborus samoanus*, sp. n. (Text-figs. 2 and 3).

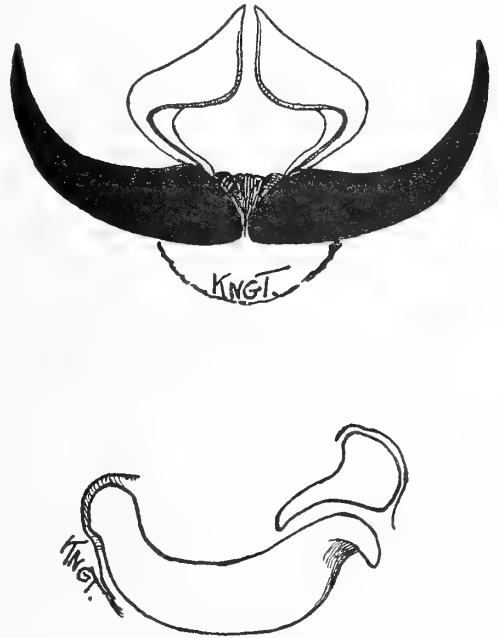
Colour.—Rather uniformly dark brown, shading to blackish on pronotum; hemelytra showing reddish-brown to red on embolium of one specimen; antennae yellowish-brown, second segment paler at base, apical half dark brown to black; legs fusco-brownish, tarsi paler. Membrane and veins uniformly fusco-brownish, shading darker toward base.

Structure.—♂. Total length 2.5 mm., width 1.13 mm. Dorsal surface moderately shining, rather uniformly and coarsely punctate, a pale pubescent hair arising from each puncture. Head: width .75 mm., vertex .32 mm.; position nearly vertical, frons nearly flat, vertical, punctate; tylus short, base not separated from frons by a suture; vertex ecarinate, basal edge sharp, overlapping anterior edge of pronotum; eyes prominent, coarsely faceted. Rostrum: length .80 mm., reaching upon middle of hind coxæ. Antennae: segment I, length .19 mm.; II, .91 mm., slender, gradually thickened on apical half to equal thickness of segment I, clothed with suberect hairs which in length slightly exceed diameter of segment; III, .26 mm., slender; IV, .24 mm., slender. Pronotum: length .69 mm., width at base 1.11 mm., moderately convex, anterior angles sloping low down behind the eyes, collar indistinct, perhaps indicated by a fine line beneath basal edge of head; lateral margins of disc sharply carinate, narrow edge reflexed; calli indistinct, disc rather evenly punctate, in part transversely rugulose, scutellum only slightly convex, trans-

versely rugulose-punctate. Hemielytra with lateral margins sharply turned downward, embolar edge distinctly arcuate on basal half, embolium not defined. Cuneus short, strongly deflexed, width at base greater than length. Membrane with cells as shown in the figure. Legs moderately slender, tibiae beset with



TEXT-FIG. 2.—*Pseudoneoborus samoanus*, n. sp.



TEXT-FIG. 3.—*Pseudoneoborus samoanus*, n. g., n. sp., claws and arolia enlarged (above); left and right genital claspers (below).

spines, inconspicuous, their length not exceeding diameter of tibia. Genital claspers distinctive (Fig. 3).

Upolu :—Malololelei : ♂ specimen (type), 2,000 ft., 30.xi.1924 ; ♂ specimen, 18.iv.1925 (Buxton & Hopkins).

16. *Pilophorus samoanus*, sp. n.

Distinguished from known members of the genus by the longitudinal silvery stripe on outer margin of clavus and ivory white apex of embolium and cuneus ; corium without a posterior silvery band.

Colour.—Black, in part shining, clavus, narrow basal edge of pronotum,
 II. 5—2

tibia, femora apically, and base of vertex, brownish-yellow; tip of scutellum, apical margin of embolium, tip of cuneus, veins about apex of areoles, and anal ridge of corium, ivory white; membrane uniformly brownish-black; coxae pale, anterior pair black, tarsi pale. Antennae yellowish-brown, apical half of segment II blackish, last two segments uniformly black.

Structure.—♀. Length 4 mm., width across apex of scutellum 1.04 mm., across apical area of corium 1.17 mm. Head: width .82 mm., vertex .31 mm., position vertical, triangular as viewed from anterior aspect. Rostrum, length 1.6 mm., reaching to middle of hind coxae. Antennae: segment I, length .34 mm., width .086 mm.; II, 1.47 mm., cylindrical, .06 mm. thick, more slender on basal half; III, .69 mm., slender; IV, .47 mm., slender. Pronotum: length .78 mm., width at base 1.12 mm., disc strongly and evenly convex, surface alutaceous, finely rugulose; sides slightly sulcate, collar evident as a narrow edge. Scutellum only moderately convex, higher at base and sloping down to a low apex, transversely rugulose, moderately shining. Embolar margins sinuate, turned down, practically on edge along middle, flaring apically; apical area of both embolium and corium polished; cuneus polished, turned half on edge. Hind tibiae moderately compressed, distinctly curved. Body clothed with short, recumbent, in part sericeous, yellowish pubescence; an arcuate, silvery sericeous band across embolium and corium opposite tip of scutellum, curving posteriorly for a short distance along inner edge of corium; as a continuation of this silvery band there is a longitudinal stripe along outer edge of clavus, extending from a point opposite tip of scutellum to near apex of clavus; apical area of corium and embolium destitute of silvery bands.

Upolu:—Malololelei: 1 specimen (holotype), 30.xi.1924, alt. 2,000 ft. (Buxton & Hopkins).

Subfamily MIRINAE.

17. *Trigonotylus brevipes* Reuter.

Trigonotylus brevipes Jakowlef, *Horae Soc. Ent. Ross.*, xi, p. 63, 1880.

Trigonotylus ruficornis var. *tenuis* Reuter, *Rev. d'Ent.*, xii, p. 208, 1893.

Trigonotylus pallidicornis Reuter, *Öfv. Finska Vet.-Soc. Förh.*, xlii, p. 161, 1899.

Trigonotylus brevipes Reuter, *Acta Soc. Sci. Fenn.*, xxxvi, No. 2, p. 6, 1909.

Manua:—Tau: 2 specimens, 27.ix.1923 (Swezey), "on grass."

Tutuila:—Amauli: 1 specimen, 6.ix.1923 (Swezey & Wilder).

According to Reuter (1909), this species has a world-wide distribution. The writer is uncertain about this and believes that further study could well be given to material that seems to be referable to *brevipes* Jak.

Subfamily CAPSINAE.

18. *Nesodaphne knowlesi* Kirkaldy.

Nesodaphne knowlesi Kirkaldy, *Proc. Linn. Soc. N.S. Wales*, xxxiii, p. 381, 1908.

Eutinginotum raiateae Cheesman, *Entomologist*, lix, p. 266, pl. 3, 1926.

Nesodaphne knowlesi Cheesman, *Trans. Ent. Soc. London*, lxxv, p. 157, 1927.

Tutuila :—Leone Road : 3 specimens, 24.iii.1926 (Judd) ; Pago Pago : 1 specimen, iv.1918, 0–300 ft. (Kellers).

Originally described from Fiji by Kirkaldy and reported on *Artocarpus incisa* and tobacco leaves. Miss Cheesman (1926) described this insect as new from the Society Islands, but later (1927) found it to be identical with *Nesodaphne knowlesi* Kirk.

Guisardus Distant.

Guisardus Distant, *Fauna Brit. India, Rhynchota*, II, p. 436, 1904.

Nesosylphas Kirkaldy, *Proc. Linn. Soc. N.S. Wales*, xxxiii, p. 379, 1908.

Serropeltis Poppius, *Ann. Mus. Nat. Hung.*, x, p. 425, 1912.

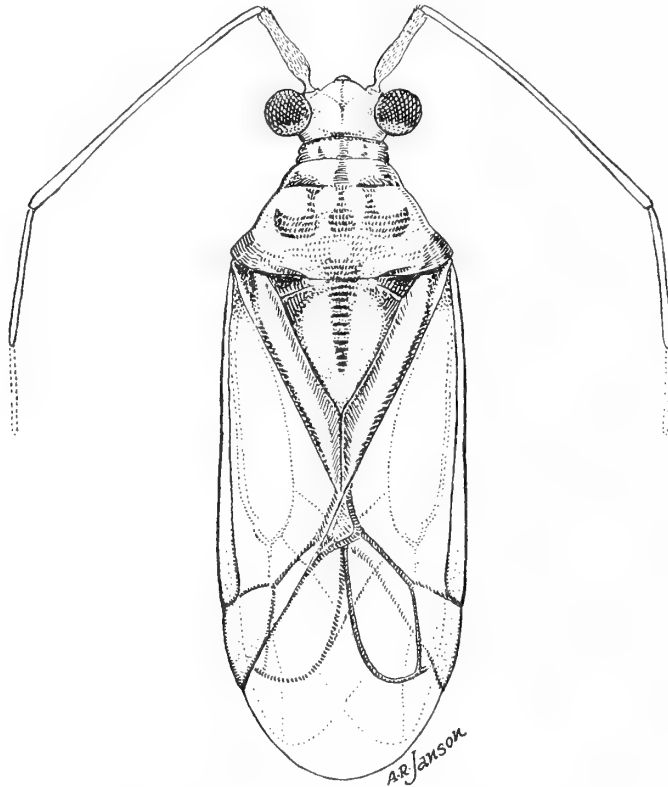
19. *Guisardus samoanus*, sp. n. (Text-fig. 4).

Allied to *G. pacifica* Kirk., but differs in the black marks on pronotum and collar, also in the pale cuneus.

Colour.—Pale yellowish, hemelytra translucent, pronotum curiously marked with blackish, as shown in Fig. 4 ; scutellum with median line and basal angles blackish, mesonotum blackish, yellowish each side of middle, clavus with all margins narrowly blackish ; spot above base of each antenna, slender median line of vertex and frons and extending upon base of tylus, black. Antennae yellowish-brown, segment I tinged with reddish, segment III and apex of II fuscous. Cuneus uniformly pale translucent like the corium. Membrane clear, veins dark brown to blackish. Propleura with longitudinal black ray extending back from the transverse impressed line that extends up and along posterior margins of calli. Venter with reddish along lateral line, but becoming obsolete on genital segments. Legs yellowish, femora with two rows

of fuscous dots on anterior face, also a few dots beneath and on posterior aspect ; tibial spines brownish, tarsi fuscous, apices darker.

Structure.—♀. Length 5.5 mm., width 1.9 mm. Head : width 1.23 mm., vertex .52 mm. ; vertex with median line finely grooved ; head position vertical, tylus prominent on base, bucculae with lower margin strongly arcuate. Rostrum, length 2.2 mm., extending to near hind margins of posterior coxae. Antennae : segment I, length .69 mm., thicker (.173 mm.) near base, rather



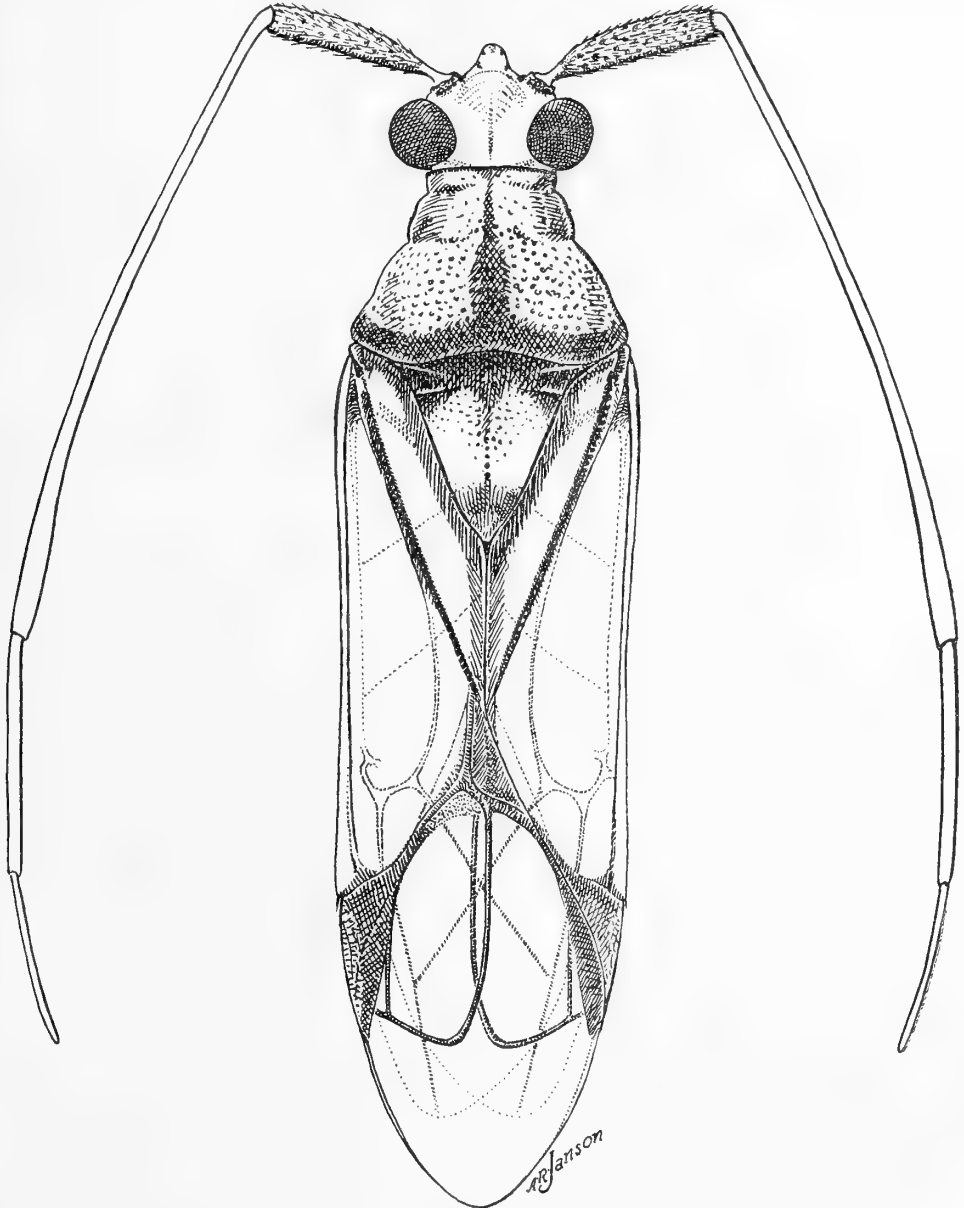
TEXT-FIG. 4.—*Guisardus samoanus*, n. sp.

finely pubescent and devoid of bristles ; II, 2.38 mm., nearly cylindrical, slightly enlarged at apex ; III, 1.04 mm. ; IV, broken. Pronotum : length 1.17 mm., width at base 1.70 mm. ; a groove-like line delimiting posterior margins of calli and extending over the sides upon propleura ; black marks on prothorax and scutellum deeply grooved by a series of transverse striae. Claval suture with distinct punctures. General form well shown in Fig. 4.

Tutuila : ♀ (holotype), 21.vi.18, alt. 1,070 ft., eastern end of island (Kellers).

20. *Hyalopeplus samoanus*, n. sp. (Text-fig. 5).

Allied to *H. loriae* Popp., but lacking the three black lines on head and pronotum; pronotal disc rather smooth, distinctly punctate but scarcely rugulose; without trace of transverse striations found in *rama* Kirby, *vitripennis*



TEXT-FIG. 5.—*Hyalopeplus samoanus*, n. sp.

Stål, and others; median line of pronotal disc rather broadly and the basal margin fuscous to blackish, the punctures very evident within the dark colour.

♀. Length 8.7 mm., width 2.4 mm. Head: width 1.57 mm., vertex .61 mm.; median line of vertex indicated by a slender dark brown line, frons with several obliquely transverse striate lines; median line of tylus, margins of juga, median line of lora and extending beneath eye, reddish. Rostrum, length 4.7 mm., reaching to near middle of venter, yellowish-brown, apex blackish. Antennae: segment I, length 1.3 mm., thickness .31 mm., very slightly arcuated as viewed from above, yellowish-brown, with numerous reddish flecks and spots, clothed with moderately prominent black pubescence; II, 5.28 mm., reddish-brown, becoming blackish near apex; III, 1.95 mm., black, basal one-third pale; IV, 1.3 mm., black, narrowly pale at base.

Pronotum: length 1.60 mm., width at base 2.25 mm.; outline as shown in Fig. 5; disc rather smooth, distinctly punctate but not rugulose, without trace of striations found in *H. vitripennis* Stål and related species; yellowish to brownish, median line of disc and basal margin fuscous to blackish. Scutellum depressed on median line, punctate, the apex suddenly declivous and acute, base and apex blackish, the depressed apex reddish.

Hemelytra translucent, as characteristic for the genus, veins as shown in figure, cuneus, except outer margin, deep red. General body coloration yellowish, sides of venter with a slender longitudinal red stripe. Legs yellowish, femora shaded with reddish on apical half, hind pair with two rows of small fuscous spots on anterior face, the posterior face with a double row of fuscous to reddish spots on apical half; tips of tarsi blackish.

Samoa:—Tutuila: 3 specimens (including type ♀), 9.ix.1923 (Swezey & Wilder).

Upolu:—Vailima: 1 specimen, 8.vi.1924; Apia: 2 specimens, iv.1925; 1 specimen, x.1925, alt. 1,000 ft.

21. *Creontiades stramineus* (Walker).

Capsus stramineus Walker, *Cat. Het.*, VI, p. 120, 1873.

Kangra dudgeoni Kirkaldy, *Trans. Ent. Soc. London*, 1902, p. 257, 1902.

Megacoelum stramineum Distant, *Fauna Brit. Ind.*, *Rhynch.* II, p. 428, 1904.

Creontiades stramineus Poppius, *Öfv. Finska Vet. Soc. Förh.*, LIII, Afd. A, No. 2, p. 11, 1911.

Creontiades stramineus Poppius, *Archiv. f. Naturges.*, 80, 1914, Abt. A, p. 14, 1915.

Upolu:—Apia: 1 specimen, 5.v.1924 (Armstrong); 1 specimen, 3.vi.1924, 1 specimen, iv.1925, 2 specimens, 28.iv.1925 (Buxton & Hopkins); 1 specimen,

12.ix.1923 (Swezey & Wilder) ; W. Samoa, 1 specimen, 2.iii.1924 (Armstrong) ; Malololelei : 1 specimen, 28.vi.1924, 1 specimen, 2,000 ft., vii.1924 (Buxton & Hopkins) ; 1 specimen, vii.1925 (Wilder) ; Siumu : 3 specimens, 23.xi.1924 (Armstrong).

Savaii :—Safune : 4.v.1924 (Bryan).

Tutuila :—Pago Pago : 1 specimen, 10.ix.1923 (Swezey & Wilder) ; 1 specimen, 0-300 ft., iv.1918 (Kellers) ; centre of island, 1 specimen, 900-1,200 ft. ; 10 specimens, iv.1918 (Kellers).

Manua Is. :—Tau : 1 specimen, 17.ix.1923 (Swezey & Wilder).

This species appears to be widely distributed throughout the Pacific regions. Originally described from North Bengal, it has since been reported from Ceylon (Distant, 1904 & Poppius, 1911), Java (Poppius, 1914), and Formosa (Poppius, 1915).

22. *Creontiades samoanus*, sp. n.

Allied to *C. novaeguineae* Popp., but antennal segment II more than two and a half times the length of segment I ; also differs in that vertex of male is narrower and of female wider than dorsal width of an eye. Differs from *C. stramineus* Walk. in that length of antennal segment I is not equal to width of head across eyes.

Colour.—Pale yellowish, tinged with greenish in life, basal margin except basal angles blackish, scutellum, clavus and inner angles of corium fuscous to blackish, cuneus sometimes reddish. Membrane and veins uniformly fusco-brownish, veins becoming reddish apically in specimens having reddish cuneus. Clothed with pale yellowish pubescence. Antennae yellowish, segment I often reddish, segment III and apex of II often reddish. Legs greenish-yellow, hind femora fuscous to blackish, often with reddish hypodermis showing through, tibial spines pale brownish.

Structure.—♂. Length 5.6 mm., width 1.8 mm. Head : width 1.0 mm., vertex .30 mm. Rostrum, length 2.4 mm., attaining hind margins of posterior coxae. Antennae : segment I, length .82 mm. ; II, 2.3 mm. ; III, 2.08 mm. ; IV, 1.04 mm. Pronotum : length .93 mm., width at base 1.51 mm.

♀. Length 5.8 mm., width 2 mm. Head : width 1.04 mm., vertex .39 mm. Antennae : segment I, length .82 mm. ; II, 2.51 mm. ; III, 2.16 mm. ; IV, 1.08 mm. Pronotum : length .99 mm., width at base 1.75 mm. Very similar to the male in form and coloration.

Tutuila :—1 specimen, 760–900 ft., iv.1918, 1 specimen, 1,000 ft., 25.viii.1918, 1 specimen, 1,000–1,200 ft., xii.1918 (Kellers); Leone Road : 3 specimens (including holotype), 7.ix.1923 ; 1 specimen, 9.ix.1923 ; Pago Pago : 3 specimens, 1.x.1923 (Swezey & Wilder).

Upolu :—Apia : 1 specimen, 4.v.1924 (Armstrong).

Savage Island (Niue) : 3 specimens, 5.viii.1918 (Kellers).

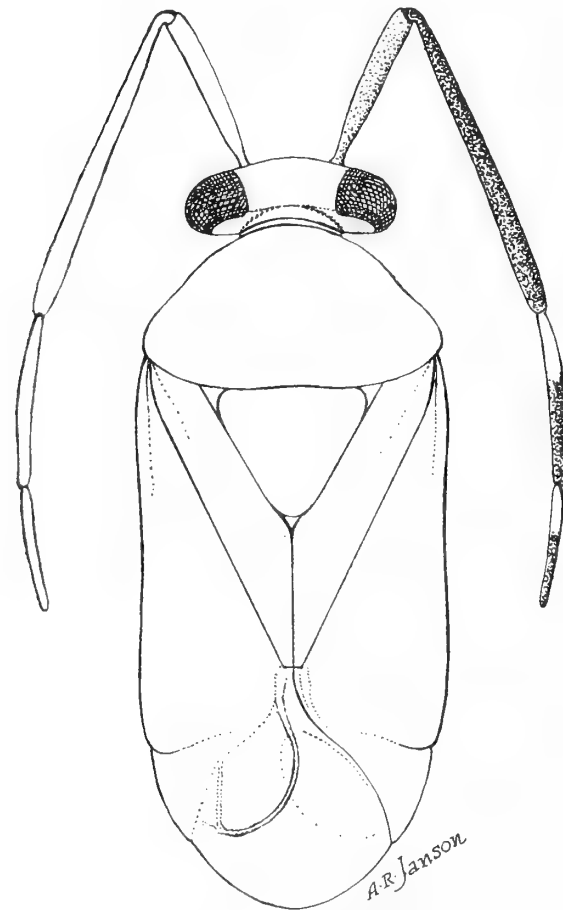
Sidnia kellersi, sp. n. (Text-fig. 6).

Evidently belongs to this genus and distinguished from *S. kingbergi* Stål by

the longer first antennal segment, which is equal (σ) to half the length of segment II, also will extend for half its length beyond the tip of tylus.

Colour. — Rather uniformly golden-yellow, scutellum more golden-brown, eyes brown. Antennae blackish, basal third of segment III and of segment IV pale, segment II more or less brownish at base, segment I golden-brown. Membrane and veins uniformly brownish-black. Legs unspotted, golden-yellow, tibial spines black, without spots at base.

Structure. — σ . Length 3.9 mm., width 1.7 mm. Head : width 1.19 mm., vertex .52 mm. ; vertical in position, vertex and frons evenly convex, forming an even contour with margins of eyes, base of vertex with a slight carinate ridge ; tylus merging with



TEXT-FIG. 6.—*Sidnia kellersi*.

frons, suture absent. Rostrum, length 1.8 mm., reaching to middle of hind coxae. Antennae : segment I, length .91 mm., thickness .15 mm., more

slender at base, finely pubescent; II, 1.82 mm., greatest thickness (.14 mm.) just before apex, more slender toward base, finely pubescent; III, .95 mm., thickness .086 mm.; IV, .69 mm., more slender than segment III. Pronotum: length 1.04 mm., width at base 1.64 mm.; disc evenly convex, impunctate, very finely pubescent, lateral margins ecarinate, collar distinct, calli scarcely swollen, but indicated by a change in colour. Scutellum strongly but evenly convex, transversely rugulose. Hemielytra black pubescent, paler on embolium. Tibiae rather thick, middle pair distinctly swollen on middle and tapering to more slender at base and apex, hind pair only slightly swollen; tarsi slender. Claws and arolia typical of the Capsinae. Genital claspers not prominent, left clasper slender, curving about margin of segment, right clasper small and inconspicuous.

Savage Island :—Niue : 4 specimens, 6.viii.1918 (Kellers).

23. *Lygus samoanus*, sp. n.

Allied to *L. ventralis* Popp., but differs from this and related species by the longer first antennal segment; length of segment I slightly exceeding width of head across eyes.

Colour.—Ground colour pale greenish-yellow, basal angles of pronotum and extending along base of propleura, clavus, and inner apical angles of corium, reddish to brownish-black; antennae reddish to fuscous with paler at base of first and second segments; tibiae and hind femora reddish in darker coloured specimens, tibial spines brownish and without spots at base; membrane and veins uniformly dark fuscous.

Structure.—♂. Length 5 mm., width 1.82 mm. across tip of scutellum, while only 1.52 mm. across tip of clavus. Head: width .99 mm., vertex .39 mm.; position vertical, vertex ecarinate, base of tylus confluent with frons, lora prominent. Rostrum, length 1.73 mm., only reaching upon middle coxae. Antennae: segment I, length 1.08 mm., cylindrical, finely pubescent; II, 2.51 mm., slender; III, broken. Pronotum: length 1.05 mm., width at base 1.65 mm.; disc very minutely punctate, calli evident as slight transverse swellings. Dorsum clothed with fine, short, pale yellowish pubescence; scutellum and clavus finely rugulose but scarcely punctate. Hemielytra wider on basal half and narrowed behind, cuneus twice as long as wide at base. Legs long for a *Lygus*, hind femur 2.6 mm. in length, hind tibia 3.7 mm. in length;

tibial spines in length not exceeding diameter of tibia. Genital claspers distinctive.

♀. Length 5.6 mm., width 2 mm. across tip of scutellum. Head: width 1.01 mm., vertex .38 mm. Antennae: segment I, length 1.04 mm.; II, 2.27 mm.; III, 1.68 mm.; IV, 1.18 mm. Pronotum: length 1.12 mm., width at base 1.73 mm.

Savaii:—Salailua: 2 specimens (holotype and allotype), 22.v.1924 (Bryan).

This species may well represent a subgenus of *Lygus*, but the writer is unable to place it in such a group or related genus.

24. *Lygus swezeyi*, sp. n.

In the key by Poppius (1914) this species runs down to *L. gestroi* Popp., but differs at least in colour markings; distinguished by the uniformly pale cuneus, with black on pronotum covering basal angles only. Colour aspect rather similar to *L. samoanus*, n. sp., but the first antennal segment much shorter, only equal to two-thirds the width of head across eyes.

Colour.—Ground colour pale yellowish, clavus and basal angles of pronotum black; inner apical angles of corium, membrane and veins dark fuscous; head reddish, tylus and eyes black, antennae black, basal segment reddish to brownish on basal half; pleura, sides of abdomen, scutellum in some specimens, apical half of hind femora and apices of front and middle legs, reddish; tibiae reddish to fuscous, spines brownish, tarsi fuscous.

Structure.—♀. Length 5 mm., width 1.9 mm. Head: width .99 mm., vertex .39 mm.; position vertical, frons prominent, vertex ecarinate, base of tylus confluent with frons, only slightly depressed. Rostrum, length 1.55 mm., nearly attaining hind margins of middle coxae. Antennae: segment I, length .68 mm., cylindrical, finely pubescent; II, 1.9 mm., slender; III, 1.43 mm.; IV, broken. Pronotum: length 1.08 mm., width at base 1.62 mm., lateral margins moderately sulcate, disc minutely punctate, calli evident as a transverse swelling which extends over sides of disc, making the anterior angles appear rounded. Dorsum clothed with fine, short, pale yellowish pubescence; scutellum smooth, impunctate. Embolar margins moderately and evenly arcuate, embolium flat. Legs moderately long, hind femur 1.99 mm. in length, tibia 2.9 mm.; tibial spines in length about equal to diameter of tibia.

♂. Length 3.9 mm., width 1.6 mm. just behind scutellum. Head: width

·86 mm., vertex ·32 mm. Antennae : segment I, length ·67 mm. ; II, 1·95 mm. ; III, 1·34 mm. ; IV, ·58 mm. Pronotum : length ·86 mm., width at base 1·28 mm. Very similar to the female in coloration, except sometimes without the reddish coloration.

Tutuila :—1 specimen, 22.xi.1918, alt. 2,141 ft. (holotype) ; 2 specimens, iv.1918, alt. 760–1,200 ft., 1 specimen, 13.x.1918, alt. 1,000 ft. (Kellers) ; Pago Pago : 15 specimens, 9.xi.1923, 1 specimen, 24.xi.1923, 1 specimen, 12.iv.1924 (Swezey & Wilder) ; Afono Trail : 2 specimens, 25.xi.1923 (Swezey & Wilder).

25. *Lygus buxtoni*, sp. n.

Allied to *L. muiri* Popp., but differs as follows : vertex without distinct longitudinal depression, rostrum scarcely attaining hind margins of posterior coxae ; length of second antennal segment not quite equal to three times the length of first segment ; length of pronotum equal to more than half the width of pronotum at base.

Colour.—Yellowish-brown tinged with reddish ; base and apex of cuneus, tip of embolium, sides of venter and thorax, and marks on apical half of femora bright red ; antennae uniformly yellowish, segment II fuscous at tip, segment III fuscous on apical fourth, segment IV fuscous ; tibia pale yellowish, spines brown and without spots at base. Membrane rather unevenly shaded with fuscous, a spot beyond tip of cuneus, central spot, and basal half of areoles paler, veins dusky, cubitus paler about apex of larger areole.

Structure.—♀. Length 4·7 mm., width 2·5 mm. ; short oval in outline. Head : width 1·21 mm., vertex ·38 mm. ; basal margin without elevated carina, but margin formed by a rather deep step-down to the collum, which is normally covered by the close-fitting collar ; position vertical, frons moderately convex, eyes large, hollowed out behind and fitting closely against anterior angles of the pronotum ; inner margins of eyes emarginate about insertion of antennae. Rostrum, length 1·99 mm., scarcely attaining hind margins of posterior coxae, Antennae : segment I, length ·78 mm. ; II, 2·03 mm. ; III, 1·21 mm. ; IV, ·86 mm. Pronotum : length 1·12 mm., width at base 1·95 mm. Hind femur : length 2·2 mm., width ·52 mm., length of hind tibia 3·2 mm. Dorsal surface clothed with pale yellowish pubescence, intermixed on clavus and corium with a few golden, sericeous, pubescent hairs.

Tutuila :—Pago Pago : 1 specimen (holotype), 14.xii.1925 (Buxton & Hopkins) ; 1 specimen, 18.iv.1924 (Bryan) ; eastern end of island : 2 specimens,

iv.1918, alt. 760–900 ft. ; 3 specimens, 21.vi.1918, alt. 1,070 ft. ; centre of island : 2 specimens, 30.vi.1918, alt. 900–1,200 ft. (Kellers) ; Afono Trail : 1 specimen, 25.ix.1923 (Swezey & Wilder).

Upolu :—Apia : 1 specimen, x.1925, alt. 1,000 ft. (Buxton & Hopkins).

26. *Lygus finis*, sp. n.

Closely allied to *L. buxtoni*, but differs in the smaller size and brownish coloration without reddish tinge or red markings.

Colour. — Yellowish-brown to fusco-brownish ; antennae uniformly yellowish, segment III only slightly infuscated ; pronotal disc, scutellum, more or less on clavus, apex of embolium and apical area of corium more or less fusco-brownish ; scutellum yellowish translucent, apex fuscous. Venter and sides of thorax dark brown to fuscous. Legs yellowish, apical half of femora more or less darkened with fuscous but not distinctly annulated ; tibial spines fusco-brownish, tiny spots evident at base of spines. Membrane rather unevenly shaded with fuscous, a spot beyond tip of cuneus, central spot, and basal half of areoles paler ; veins dusky, cubitus paler about apex of larger areole.

Structure.—♂. Length 4 mm., width 1.7 mm. Head : width 1.06 mm., vertex .26 mm., equal to a little more than half the dorsal width of an eye ; basal margin without elevated carina, but margin formed by a rather deep step-down to the collum, which is normally covered by the close-fitting collar ; position vertical, eyes large, hollowed out behind and fitting closely against anterior angles of the pronotum ; inner margins of eyes emarginate about insertion of antennae ; rostrum, length 1.73 mm., scarcely attaining hind margins of posterior coxae. Antennae : segment I, length .65 mm., slender ; II, 1.86 mm., slender ; III, 1.12 mm. ; IV, broken. Pronotum : length .86 mm., width at base 1.47 mm. ; disc very finely rugulose punctate. Hind femur, length 1.9 mm., length of hind tibia 2.9 mm. Dorsal surface clothed with pale yellowish pubescence, intermixed on clavus and corium with a few golden, sericeous, pubescent hairs.

Upolu :—Lalomanu, Aleipata, 1 specimen (holotype), xi.1924 (Buxton & Hopkins).

Tutuila :—1 specimen, 13.x.1918, alt. 1,000 ft. (Kellers).

Savage Island :—Niue : 1 specimen, 6.viii.1918 (Kellers).

27. *Lygus kellersi*, sp. n.

In the key by Poppius (1914) this species would be associated with *L. pacificus* Popp. and *L. exiguus* Popp., from both of which it may be distinguished by the uniformly yellowish cuneus with apex only brownish, and by the sub-basal transverse black band on pronotum.

Colour.—Ground colour pale yellowish, apices of hind femora and a sub-basal transverse band on pronotum black; antennae yellowish, first segment brownish at apex, second blackish apically, last two segments fuscous, except basally; hemielytra brownish, embolium and outer apical half of corium, except apex, paler, cuneus uniformly yellowish, apex sometimes brownish; basal angles of scutellum, pleura, and sides of venter more or less brownish; membrane and veins brownish to fuscous.

Structure.—♂. Length 3.9 mm., width 1.7 mm. Head: width 1.04 mm., vertex .30 mm., position vertical, frons only slightly convex, confluent with tylus, in lateral aspect forming a broadly arcuate line; vertex ecarinate, basal margin concave, eyes extending back and covering anterior angles of pronotum. Rostrum, length 1.64 mm., nearly attaining posterior margins of hind coxae. Antennae: segment I, length .56 mm.; II, 1.9 mm., cylindrical, slightly more slender at base; III, 1.08 mm.; IV, .60 mm. Pronotum: length .91 mm., width at base 1.47 mm., disc moderately and rather evenly convex, minutely rugulose but scarcely punctate, lateral margins straight, calli scarcely evident as swellings above contour of disc. Dorsum clothed with fine, short, pale yellowish pubescence, scutellum smooth, impunctate. Embolar margins very slightly arcuate. Legs moderately long, hind femora rather thick, length 1.8 mm., width .48 mm.; tibia 2.8 mm. in length, spines in length slightly exceeding diameter of tibia.

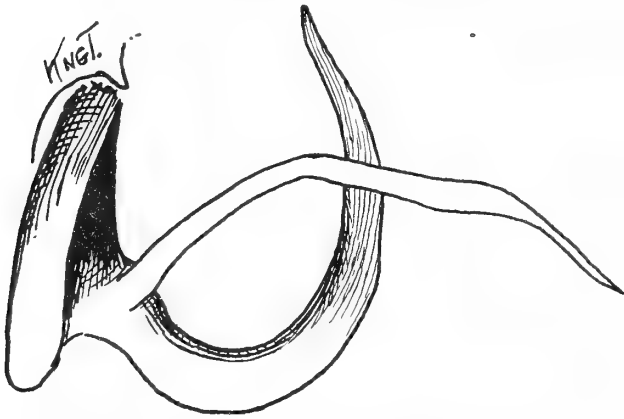
♀. Length 4.2 mm., width 2 mm. Head: width 1.12 mm., vertex .39 mm. Antennae: segment I, length .61 mm.; II, 1.88 mm.; III, 1.12 mm.; IV, .65 mm. Pronotum: length 1.04 mm., width at base 1.73 mm. More robust than the male, but very similar in pubescence and coloration.

Tutuila:—8 specimens (including holotype), 21.vi.1918, alt. 1,070 ft., eastern end of island: 2 specimens, iv.1918, alt. 760–900 ft. (Kellers).

28. *Lygus bryani*, sp. n. (Text-fig. 7).

In the key to *Lygus* by Poppus (*Ann. Mus. Nat. Hung.*, xii, 1914) this species would be associated with *L. longirostris* Popp., but it differs from that species in several respects; distinguished by the ecarinate vertex and lack of a longitudinal groove, also by the peculiar structure of the left genital clasper.

Colour.—Ground colour pale yellowish tinged with greenish, dorsum marked with fuscous and black; basal half of pronotum and disc of scutellum more or less blackish, pronotal disc with two yellowish rays, one each side of



TEXT-FIG. 7.—*Lygus bryani*, left genital clasper, postero-dorsal aspect.

median line cutting into the black, basal edge of disc pale. Head yellowish, tylus and sometimes frons fuscous to blackish. Antennae fuscous to black, basal half of first and second segments more or less yellowish. Hemelytra yellowish translucent, clavus except more or less on outer margin, apical area of corium and small spot on middle, paracuneus, and inner basal

angle of cuneus blackish. Membrane dark fuscous, darker within larger areole, veins yellowish. Venter rather distinctly reddish, genital segment paler. Legs yellowish, femora with two fuscous annuli on apical half, tips of tibia and the tarsi fuscous.

Structure.—♂. Length 5.2 mm., width 1.8 mm. Head: width .97 mm., vertex .39 mm.; base ecarinate except for a slight ridge at corner of eye. Rostrum, length 2.77 mm., reaching upon sixth ventral segment. Antennae: segment I, length .91 mm., cylindrical; II, 2.38 mm., slender; III, 1.6 mm.; IV, broken. Pronotum: length .95 mm., width at base 1.5 mm.; disc finely rugulose punctate, lateral margins ecarinate, slightly sulcate, calli distinctly swollen, collar distinct. Scutellum distinctly convex, transversely rugulose but impunctate. Clavus and inner half of corium finely rugulose punctate. Dorsum thickly clothed with recumbent pale yellowish pubescence, while groups of sericeous hairs produce a few lighter-coloured spots on clavus and corium.

Genital claspers distinctive (Text-fig. 7); remarkable for the slender chitinous blade which projects mesad and obliquely distad from inner face of left clasper.

♀. Length 5.6 mm., width 2 mm. Head: width 1.01 mm., vertex .43 mm. Antennae: segment I, length .91 mm.; II, 2.29 mm.; III, 1.6 mm.; IV, broken. Pronotum: length 1.04 mm., width at base 1.68 mm. Very similar to the male in form and coloration.

Savaii:—Salailua: 4 specimens (including holotype and allotype), 23.v.1924 (Bryan).

29. *Lygus hopkinsi*, sp. n.

Allied to *L. bryani*, n. sp., having much the same form and colour aspect, but easily distinguished by the shorter rostrum and first antennal segment; genital claspers distinctive.

Colour.—Very similar to *L. bryani*; ground colour pale yellowish, probably tinged with greenish in life; pronotum dark brownish to blackish, calli and median line of disc yellowish. Head yellowish to brownish, tylus darker. Antennae brownish to black, first segment brownish. Scutellum dark brownish or fuscous, clavus blackish in dark specimens. Corium with fusco-brownish on inner apical angles. Cuneus uniformly yellowish translucent. Membrane and veins rather uniformly brownish-black, a slightly paler spot at middle. Venter pale yellowish, lateral margins with a broad brownish stripe which extends upon genital segment. Legs yellowish, tibiae and spines brownish, femora with brownish on apical half, but not distinctly banded.

Structure.—♂. Length 4.4 mm., width 1.56 mm. across tip of scutellum, and 1.25 mm. across tip of embolium. Head: width .88 mm., vertex .34 mm.; basal carina evident as a slight ridge or step-down to the collum. Rostrum, length 1.56 mm., reaching upon middle of hind coxae. Antennae: segment I, length .74 mm., cylindrical; II, 1.86 mm., slender; III, broken. Pronotum: length .91 mm., width at base 1.43 mm.; disc finely rugulose punctate, lateral margins rounded, slightly more sulcate than in *bryani*, calli evident as a transverse swelling at anterior margin of disc, anterior angles rounded and confluent with swelling of calli, collar distinct. Scutellum only slightly convex, transversely rugulose. Clavus finely punctate, corium impunctate but with minute depressions evident in certain lights. Dorsum clothed with fine, recumbent, yellowish pubescence; sericeous hairs not evident. Hemielytra widest across tip of scutellum and distinctly narrower across tip of embolium; cuneous and

membrane slightly longer than in *bryani*. Genital claspers distinctive, the left clasper not provided with a blade-like prong at middle.

♀. Length 4.9 mm., width across tip of scutellum 1.7 mm., across tip of embolium 1.47 mm. Head: width .91 mm., vertex .346 mm. Antennae: segment I, length .73 mm.; II, 1.79 mm.; III, 1.16 mm.; IV, .86 mm. Pronotum: length .99 mm., width at base 1.51 mm. Very similar to the male in form and coloration.

Savaii:—Safune: 3 specimens (including holotype and allotype), Matavanu crater, 13.v.1924 (Bryan).

30. *Lygus oceanicus* Poppius.

Lygus oceanicus Poppius, *Ann. Mus. Nat. Hung.*, xii, p. 392, 1914.

Samoa:—1 specimen, Mar.–Aug., 1921 (O'Connor).

Upolu:—Malololelei: 1 specimen, 20.vi.1924 (Armstrong); 2 specimens, 11.vii.1925 (Wilder).

Savaii:—Salailua: 1 specimen, 22.v.1924 (Bryan).

Tutuila:—1 specimen, 1,000–1,200 ft., xii.1918 (Kellers); Fagasa: 1 specimen, 9.ix.1923 (Swezey & Wilder).

This species was originally described from the island of Vate (Efate), New Hebrides. The specimens in hand fit the original description in all important characters, although there is some variation in degree of coloration. In some specimens the pronotum is uniformly dark, except immediately behind the calli, while in lighter specimens pale stripes appear as described for *tagalicus* (Stål). However, the second antennal segment (1.86 mm.) is approximately four times the length of segment I (.47 mm.), while the rostrum extends well beyond the posterior coxae. The left genital clasper of the male is remarkably similar to that of *L. apicalis* Fieb., and, in fact, I could not separate these species on the basis of genital claspers. *Lygus apicalis* Fieb., *L. tagalicus* Stål, and *L. oceanicus* Popp. are certainly very closely allied and if distinct may well represent a subgenus of *Lygus*.

Plesiolygus, gen. n.

Allied to *Lygus* Hahn, as shown by the erect arolia, which are divergent on apical half. Suggestive of a small *Deraeocoris* in the glabrous, shining surface and punctate character of hemielytra, but the well-developed arolia place the

genus in subfamily Capsinae. Differs from *Paurolygus* in the long first antennal segment and punctate character of the pronotum, also by the smaller scutellum (Text-fig. 8).

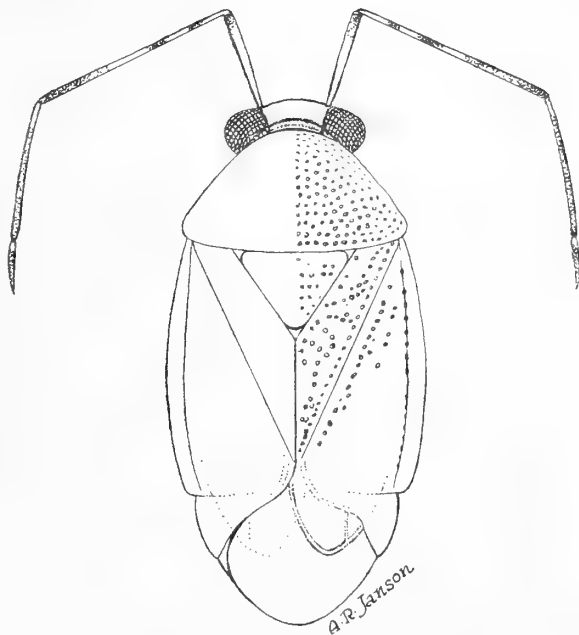
Head vertical, frons moderately convex, tylus without suture at base, impunctate, shining; vertex ecarinate, although basal edge distinctly arched; eyes rather large, but projecting only very little above general contour of frons and vertex. Rostrum reaching upon hind coxae. First antennal segment rather long, nearly equal to half the length of segment II. Pronotum with lateral margins rounded, ecarinate; calli poorly defined, merely indicated by slight swellings; collar narrow, but clearly defined by a deep stricture. Pronotum and clavus coarsely punctate, scutellum more finely punctate; corium with a row of punctures bordering claval suture, also five or six punctures on basal half. Genital claspers distinctive.

Genotype:—*Plesiolygus punctatus*, sp. n.

31. *Plesiolygus punctatus*, sp. n. (Text-fig. 8).

Colour.—Dorsum glabrous, shining, brown to dark brown, legs, collar and embolium more yellowish, cuneus yellowish translucent, darker near base; hind femora with two subapical reddish bands, becoming obsolete on anterior pairs; spines and pubescence on legs pale to yellowish. Antennae pale yellowish, apex of segment I, apical one-third of segment II, with band just short of middle and fainter band nearer base, fuscous; last two segments blackish, each with pale at base.

Structure. — ♂. Length 2.7 mm., width 1.5 mm. Dorsal surface nearly glabrous, only very short and fine pubescence about cuneus and embolium; ventral surface and legs with fine pubescence. Head: width .78 mm., vertex .30 mm.;



TEXT-FIG. 8.—*Plesiolygus punctatus*.

impunctate, shining. Rostrum, length 1.08 mm., reaching upon hind coxae. Antennae: segment I, length .49 mm., cylindrical; II, 1.08 mm., cylindrical, only slightly more slender toward base; III, .78 mm.; IV, .30 mm. Pronotum: length .91 mm., width at base 1.27 mm.; rather coarsely and closely punctate on disc and sides, more finely punctate on swellings of the indistinct calli; collar narrow, stricture deep, but somewhat overhung by the anterior edge of pronotal disc. Scutellum moderately convex, distinctly punctate, but punctures smaller than on pronotum. Clavus coarsely but more sparsely punctate than disc of pronotum, corium with a row of punctures bordering clavus and embolium, also five or six punctures on basal, half; cuneus impunctate. Cuneus and membrane strongly deflexed, areoles of the usual type. Legs normal for the group, finely pubescent, tibia with two rows of spines, their length not exceeding diameter of tibia. Arolia and claws similar to that in *Lygus*. Genital claspers distinctive.

Tutuila:—3 specimens (including ♂ holotype and ♀ allotype), 21.vii.1918, 1,200 ft.; 3 specimens, 760–900 ft., iv.1918, 1 specimen, 1,000 ft., 13.x.1918; 1 specimen, 21.vi.1918, 1,070 ft., eastern end of island; 2 specimens, 900–1,200 ft., centre of island (Kellers); Pago Pago: 1 specimen, 18.iv.1924 (Bryan); 2 specimens, 20.ix.1923, 1 specimen, 24.ix.1924 (Swezey & Wilder).

Savaii:—Safune: 1 specimen, 5.v.1924, 1 specimen, 11.v.1924, 1,000–2,000 ft. (Bryan).

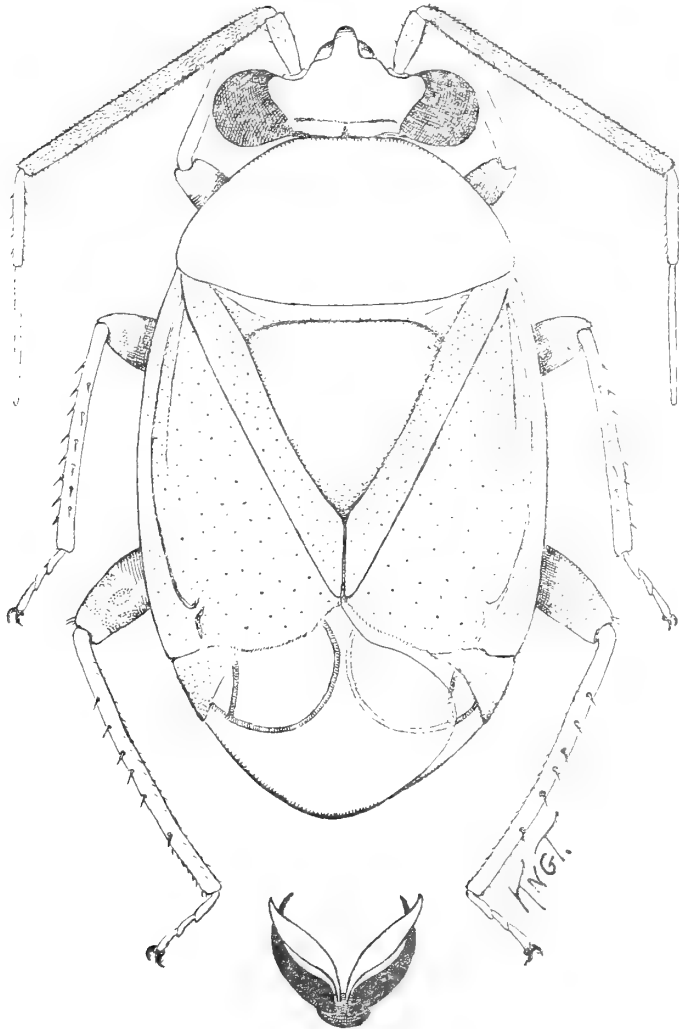
Paurolygus, gen. n.

Allied to *Lygus* Hahn and related genera, but distinguished by several characters. Form and shining surface suggestive of a small *Deraeocoris*, but the claws and arolia place it in the subfamily Capsinae. Arolia large and prominent, equal to size of claws, attached only at base and extending free as far as tip of claws (Fig. 9). Head strongly transverse, vertical, eyes large and prominent, frons sulcate each side above base of antenna; clypeus not separated by a distinct suture at base; carina of vertex slightly ante-basal, median line of collum impressed. Antennal segment II cylindrical (♂), equal in thickness to segment I, closely pubescent. Scutellum large, convex, although flattened on disc, lateral margins bulging somewhat and overhanging the claval margin. Glabrous, only very finely punctate. Cuneus and membrane strongly deflexed.

Genotype:—*Paurolygus scutatus*, n. sp.

32. *Paurolygus scutatus*, sp. n. (Text-fig. 9).

Colour.—Yellowish-brown, shading darker on clavus and inner apical angles of corium, scutellum blackish, moderately shining, hemielytra subtranslucent. Membrane pale, slightly tinged with brownish, veins brown.



TEXT-FIG. 9.—*Paurolygus scutatus*, n. sp. ; inset, claws and arolia.

Antennae yellowish-brown, apices of segments I and II darker, segments III and IV blackish. Line on lateral edge of pronotal disc, lorae and dorsal half of juga red. Legs pale yellowish, femora biannulate with reddish before apices, tibial spines dark brown, a reddish to dark brown spot at base of each, tips of

tarsi blackish; hind femora with four or five fuscous dots on ventral surface, from each of which arises a long hair. Sternum, genital segment, and more or less on ventral surface of preceding segments, brownish to fuscous.

Structure.—♂. Total length 3.2 mm. Dorsal surface glabrous, shining. Head: width 1.12 mm., vertex .56 mm.; position nearly vertical, eyes large, somewhat flattened, frons sulcate each side above base of antenna. Rostrum broken. Antennae: segment I, length .26 mm.; II, 1.25 mm.; III, .39 mm.; IV, .56 mm. Pronotum: length .84 mm., width at base 1.47 mm.; minutely punctate on disc. Scutellum strongly convex although flattened on disc, minutely transversely rugulose but not distinctly punctate; lateral margins bulging somewhat over edge of clavus, although difficult to depict in a drawing of the dorsal aspect. Hemielytra subtranslucent, very finely yet distinctly punctate; cuneus and membrane sharply deflexed, as shown in the figure; embolar margins arcuate, edges rather sharp. Legs as shown in the figure. Genital claspers small and inconspicuous; however, the segment wall forms a prominent, bluntly rounded, posteriorly projecting lobe above left clasper.

Upolu:—Apia: ♂ specimen (holotype), 1,200 ft., 20.ii.1925 (Buxton & Hopkins).

Family ANTHOCORIDAE.

33. *Lasiochilus (Dilasia) fruhstorferi* Poppius.

Lasiochilus (Dilasia) fruhstorferi Poppius, *Acta Soc. Sci. Fenn.*, xxxvii, No. 9, p. 9, 1909.

Upolu:—Vailima: 1 specimen, 3.vi.1924 (Buxton & Hopkins).

Originally described from the island of Lombok and not reported from elsewhere since. The writer is indebted to Dr. H. M. Harris for assistance in determination of this species. The single specimen agrees with the original description in every respect, except for a slight discrepancy in comparing length of second antennal segment with width of head. We find that the second antennal segment is not equal to width of head across eyes, in fact equal to only slightly more than width of vertex plus one eye.



INSECTS OF SAMOA

AND OTHER SAMOAN TERRESTRIAL ARTHROPODA

LIST OF PARTS AND SYSTEM OF PUBLICATION:—

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 „ II. Hemiptera. (Complete.)
 „ III. Lepidoptera. (Complete.)
 „ IV. Coleoptera. (Complete.)
 „ V. Hymenoptera. (Complete.)
 „ VI. Diptera. (Complete.)
 „ VII. Other Orders of Insects. (Complete.)
 „ VIII. Terrestrial Arthropoda other than Insects. (Complete.)
 „ IX. Summary and Index.

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PART V. HYMENOPTERA.

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