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CONTENTS:

New Species of South African Psyllids, III

By F. W. PETTEY, Ph. D.

Records of South African Fruit-flies (*Trypetidae, Diptera*) with Descriptions of New Species

By H. K. MUNRO, B. Sc., F.E.S.

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NEW SPECIES OF SOUTH AFRICAN PSYLLIDS III.*

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THIS article contains descriptions of new species of Psyllidae collected by the writer. The types and paratypes may be found in the collection of the Division of Plant Industry, Entomology Section.

Psylla distincta, sp. nov. ? *heranthus feeding sp.*

[Pl. I, figs. 1, 2, 21 (a) (b), 24; Pl. II, figs. 39, 40.]

General colour of specimens in alcohol pale yellow, with posterior margin of vertex, anterior margin of pronotum, entire margin of praescutum brownish, eyes dark brown. One specimen of the ten examined has a brownish head and thorax with the posterior margin of the vertex, the whole of the pronotum, the margin of the praescutum and of the scutellum, and the tip of the genitalia dark brown. The male is similar to the female in colour.

Head: Considerably deflexed, including eyes, broader than praescutum but not quite as broad as scutellum. Vertex in dried specimens almost twice as wide as long, with a shallow, distinct somewhat quadrate fovea on the middle line of each half posterior to the centre of each half, not pubescent or if so very finely pubescent, posterior border distinctly emarginate, with the anterior border near the middle suture somewhat bulging in dried specimens; genal cones almost as long as vertex, divergent, subacute, coarsely pubescent, the conspicuous setae not very numerous. Antennae long and slender, the basal seven segments as long as or somewhat longer than the head and thorax combined and longer than twice the width of the head, the third segment longest, the fourth about two-thirds as long as the third, the three terminal segments missing in the specimens available for inspection.

Thorax: Strongly arched, with no or very minute pubescence. Legs slender; hind tibia very nearly as long as femur, with a small basal spur (easily visible in a balsam mount, but not easily visible with binoculars), and with five rather stout dark brown spines on the margin at the apex, two of which are more close together than the other; basal segment of the hind tarsi with two spines at the apex; metacoxal spurs not very large, conical. Fore-wings large, hyaline, almost three times longer than wide; pterostigma present, somewhat opaque, long; veins hairless, marginal cells fairly large, the first

NOTE.—This article is designated as New Species of South African Psyllids III. New South African Psyllids II may be found in The South African Journal of Natural History V, 1925, pp. 125-142, Pl. XII, XIII. South African Psyllids I may be found in Entomological Memoirs No. 2, Department of Agriculture, Union of South Africa, 1924, pp. 21-30, Pl. I, II, III.

somewhat longer than the second, R+M+Cu not quite straight, the claval suture almost attaining the tip of Cu₂, venation as in figure 1a. Hind-wings large, about one-third shorter than the fore-wings; hyaline; venation as in figure 1b. Male genitalia pubescent; forceps somewhat conical, slightly toothed or chitinous at apex, shorter than anal valve, which laterally is about twice the width of the forceps, and tapers somewhat at the apex. Female genitalia a little more than half the length of the rest of the abdomen, pubescent; dorsal valve rounded at apex, pubescent, with two or three long setae on each side; ventral valve pubescent, slightly shorter than the dorsal valve and pointed at the apex.

Measurements: Length of body, male 2 mm.; female 2.8 mm. Width of head including eyes, male .6 mm.; female .7 mm. Length of fore-wing, male 2.9 mm.; female 3.11 mm. Width of fore-wing, male 1 mm.; female 1.12 mm. Length of hind-wing, male 2.02 mm.; female 2.03 mm. Width of hind-wing, male .8 mm.; female .81 mm.

Locality and collector doubtful, but probably collected by the writer by sweeping veld bushes in the western district of the Cape Province, 1923. Described from two males and two females.

Paurocephala hottentotti, sp. nov.

[Pl. I, figs. 3, 4, 22 (a) (b) (c); Pl. II, figs. 41, 42, 43.]

Colour of dried specimens: Yellow, except the two apical segments of the antennae, the apical spines of the posterior tibiae and spines of the basal posterior tarsi, which are dark brown to black; and the apex of the female genitalia, which is brownish. Ocelli reddish, eyes dark brown.

Head of female, including the eyes, about as broad as widest part of thorax, and almost three times wider than the length of the median line of the vertex. Vertex flat, wider than long, almost quadrate, with a shallow fovea in each half near the middle and near the posterior margin, finely pubescent, posterior margin deeply emarginate, on the same plane as genae, somewhat deflexed. Genae finely pubescent, with one or two longer setae located ventrally on each, somewhat swollen, rounded downwards, and retracted towards the thorax. Frons visible ventrally, somewhat depressed between the genae, with anterior ocellus at the apex on the same level as the vertex and just visible when the vertex is viewed dorsally. Antennae shorter than length of head and thorax, and somewhat longer than the width of the head including the eyes, slender, the tenth segment shorter and narrower than the ninth, and with two apical spines, the one slightly shorter and stouter than the other and less pointed at the tip, the third segment about as long as the 4th to the 7th inclusive. Eyes large, somewhat recessive.

Thorax: Fairly thick dorso-ventrally, fairly well arched, more finely pubescent than head, two very small circular foveae, one on each side of the pronotum, posterior to the eyes; posterior lateral angles of the praescutum not prominent, middle line of scutum not distinct; propleurites rather long. Legs comparatively slender, hind tibiae without basal spur, with six stout black spines at the apex, three on the inner and three on the outer margin; metacoxal spurs rather small, conical, not very slender.

Fore-wings comparatively long, narrow, rounded at the apex, widest some distance before the apex, hyaline. All veins and margin of wing with two rows of minute hairs visible only with high power of microscope; pterostigma long and narrow with scattered equally minute hairs; R, M+Cu, Cu and R+M+Cu sub-equal and rather long. Hind-wings: Venation as figured, vein Cu₂ wanting in the specimens examined.

Measurements: Length of body, male 1.35 mm., female 2 mm.; length of fore-wing, male 1.45 mm., female 2 mm.; width of fore-wing, male .65 mm., female .8 mm.; length of hind-wing, male 1.35 mm., female 1.7 mm.; width of hind-wing, male .5 mm., female .6 mm.; width of head, male .5 mm., female .64 mm.; length of antennae, male .75 mm., female .75 mm.

This species resembles *Paurocephala bicarinata* Pettey with respect to the wing venation of the fore-wings and to the male genitalia. In other respects, however, it differs considerably from the latter.

Collected on *Brabeum stellatifolium* (Hottentots' almond) at Jonkershoek, Stellenbosch, Cape Province, 20th December, 1922. It causes galls on the leaves of this shrub. Described from three males and three females.

Arytaina karrooensis sp. nov.

[Pl. I, figs. 5, 6, 23 (a) (b); Pl. II, figs. 44, 45 (a) (b).]

Colour (specimens in alcohol): Head, pronotum except sides, including the two foveae, praescutum except lateral margin, scutellum, legs and abdomen yellowish. Eyes, lateral margins of pronotum and praescutum and metathorax brownish, metacoxal spurs pale yellow. Scutum brown, with a broad median longitudinal yellow stripe and two narrow lateral longitudinal yellow stripes on each side. Antennae pale yellow, except the two basal and two apical segments, which are brown, the third to the eighth segments inclusive dark brown at the apex.

Head (specimens in alcohol), including eyes about as broad as widest part of thorax, somewhat deflexed, thorax somewhat but not highly arched. Vertex flat, about one-third wider than the length of the median line, lateral margins straight between the eyes, narrower anteriorly, posterior margin emarginate, finely pubescent, with two small inconspicuous circular foveae on each side of the median line; genae produced into short, broadly conical processes, which are as wide as long, coarsely pubescent, each with one very long ventrally located seta. Eyes comparatively small, slightly recessive, posterior ocelli bordering posterior margin. Antennae slender, considerably longer than head and thorax combined, the last two segments (9th and 10th) practically as slender as the preceding ones, at least three times longer than wide, the two combined longer than the eighth. The tenth segment one spine, but possibly a second may have been broken off (only one antenna available for examination).

Thorax broad, arched, finely pubescent. Pronotum about half the length of the vertex, with two circular foveae on each side, the innermost ones posterior to the ocelli and considerably smaller than

the outer ones; praescutum with long, acute angles at the anterior lateral margin when viewed dorsally. Legs: Hind tibiae with small yellowish rather blunt spur at the base, visible with low power of binocular, and with four dark brown spines at the apex, three on the inner margin and one on the outer; metacoxal spurs of medium size, acutely conical at tip.

Fore-wings hyaline, rather wide and short, outer margin well rounded, outer third maculated with brownish more dense maculae distributed as figured; pterostigma long, with scattered minute hairs. Costal margin of wing with small hairs; outer and inner margin with hairs invisible except with high power of microscope, and then seen with difficulty; veins with double row of fairly conspicuous hairs, visible with high power of binoculars; first marginal cell much longer and wider than the second; $R+M+Cu$ considerably longer than R and more than twice as long as $M+Cu$. Venation of hind-wing as illustrated.

Abdomen fairly coarsely but sparsely pubescent. Female genitalia: Coarsely pubescent, with several long lateral setae on the dorsal valve before the apex, and with several somewhat shorter setae on the ventral valve before the apex, which are longer than the other setae on the ventral valve. Ventral valve, viewed laterally, shorter and wider and more pointed at the apex than the dorsal valve.

Measurements: Female, length of body 2.2 mm.; length of fore-wing 2.25 mm.; width 1 mm.; length of hind-wing 2 mm.; width .85 mm.

Collected on *Acacia karroo* at De Doorns, Cape Province, 5th of February, 1923, at an elevation of about 2,000 feet. Described from one female and one male.

Arytaina capensis sp. nov.

[Pl. I, figs. 7, 8; Pl. II, figs. 30 (a) (b) (c), 46, 47, 48.]

Colour of dry specimens: Abdomen and legs yellowish and genitalia greenish. Vertex, genae, three basal segments of the antennae, and basal half of the other antennal segments, except the tenth, pale yellow, apical half of fourth to tenth antennal segments black or brown, tenth segment black. Eyes dark brown, ocelli reddish. Pronotum yellowish with foveae brownish, anterior margin of praescutum brownish with median stripe and lateral angles yellow, scutum brownish with two lateral black lines in some specimens on each side of middle, extending forward from the posterior margin but not attaining the anterior margin and widest near the posterior margin, scutellum of metathorax greenish in some specimens. Metacoxal spurs whitish. Genitalia of male and of female greenish; female genitalia brown at apex.

Head, including eyes, as broad as widest part of thorax, somewhat deflexed, thorax somewhat but not highly arched. Vertex (in dried specimens) almost flat, somewhat wider than long and narrower anteriorly than posteriorly, with a small circular fovea near the centre and posterior margin of each half extending towards the anterior, forming a narrow linear groove, very finely pubescent, posterior margin deeply emarginate, genae produced into subconical



divergent processes extending in same plane with vertex but separated from the vertex by an impressed line, rounded at apex, coarsely pubescent, about half as long as vertex. Eyes large, slightly recessive. Antennae moderately long, slender, extending back farther than the posterior margin of the thorax, the third segment about as long as the fourth and fifth combined, the fourth to seventh inclusive sub-equal in length, and longer than the eighth, the ninth and tenth shorter and broader than the third to the eighth and together about equal in length to the eighth; two stout setae at the tip of the tenth segment, the one somewhat stouter and shorter than the other.

Thorax broad, arched, finely pubescent. Pronotum with two circular foveae on each side, the innermost almost directly posterior to the ocelli. Legs fairly long; hind tibiae with a very small yellowish spur at the base, just visible with high power of binoculars, and with about ten dark brown spines at the apex; basal tarsal segment with two dark brown spines at the apex; metacoxal spurs rather long, conical.

Fore-wings hyaline, brownish in the area bordering vein Cu_2 , with a very long, narrow, opaque or subcoriaceous pterostigma, which is pubescent on the costal margin; veins with double row of fine setae, venation as figured. Hind-wings as figured.

Abdomen coarsely pubescent. Male genitalia pubescent; forceps shorter than anal valve, finger-like; anal valve much wider than forceps, converging greatly towards the apex, lateral aspect as figured. Female genitalia as long as rest of abdomen, pubescent; dorsal valve subacute at apex, longer than the ventral valve, which is more pointed at apex.

Measurements: Length of body, male 2.3 mm.; female 2.7 mm. Width of head, including eyes, male .7 mm.; female .75 mm. Length of fore-wing, male 2.75 mm.; female 3.4 mm. Width of fore-wing, male .95 mm.; female 1.1 mm.; length of hind-wing, male 2.2 mm.; female 2.35 mm. Width of hind-wing, male .72 mm.; female .8 mm.

Collected on *Rhus* sp. at Waterfall, Groot Drakenstein, Cape Province, December, 1922. Described from two males and five females.

Euphalerus valens sp. nov.

[Pl. I, figs. 9, 10, 29; Pl. II, figs. 31 (a) (b), 49, 54, 55.]

Colour of dried specimens: Vertex of head, pronotum, praescutum and scutum of thorax, and genitalia yellowish brown. Genae, abdomen, legs and whole ventral surface of body, including head, pale yellow to white. Eyes, anterior and lateral margins of scutellum, apex of female genitalia, apex of forceps, spines of hind legs dark brown to black. Ocelli reddish orange. The scutum is indistinctly marked with two broad, broken, brown lines.

Head (dried specimens) of female, including the eyes, distinctly narrower than the thorax and about three times wider than the length of the median line of the vertex, considerably deflexed. Vertex punctate, rather flat, but somewhat swollen on each side of the median line, subquadrate, the sides straight between the eyes, converging to front, truncate at front margin, broader than long,

with two linear foveae, the deepest part of which is circular and near the posterior margin, posterior margin emarginate, on the same plane as genae, coarsely pubescent. Genae coarsely pubescent, short, about as wide as long, conical or subacute at apex. Clypeus small. Antennae slender, short, about as long as width of head, the three terminal segments black to brown, wider than the others except the two basal, the tenth segment shorter and narrower than the ninth and with two terminal unequal spines, the third segment about as long as the fourth to the seventh inclusive.

Thorax: Stout, very convex transversely and longitudinally, punctate; propleurites rather long, the episternum distinctly swollen; pronotum and praescutum coarsely pubescent, the pronotum swollen at lateral margin in form of a knob; scutum more finely pubescent, very broad and convex. Legs slender, hind tibiae without basal spur, with about ten stout black spines at apex; metacoxal spurs slender, conical, not very large.

Wings: Fore-wings not very long, rounded apically, subopaque, with two transverse bands near the apex, one of which is dark brown and the other white; two similar transverse bands at the base of the wing. Pterostigma present, rather narrow, long, with scattered small hairs. All veins and margin of wing have two rows of small hairs sufficiently large to be visible through the binocular; first marginal cell distinctly shorter and wider than the second. Hind-wings, venation as figured, Cu_2 wanting, Cu does not join M .

Genitalia: Female genital segment a little longer than rest of abdomen, dorsal valve slightly longer and less pointed than the ventral, coarsely pubescent, with three or four lateral, long setae before the apex; ventral valve coarsely pubescent. Male genitalia; forceps a little longer than anal valve, shaped more or less like a knife blade, long and narrow, narrower apically than basally, coarsely pubescent, but with shorter setae than the anal valve; anal valve coarsely pubescent, with setae longest on posterior margin, narrower and truncate at the apex, widest in the middle.

Measurements: Female, length of body 2.2 mm.; length of forewing 2.3 mm.; width 1.1 mm.; length of hind-wing 1.85 mm.; width .8 mm.; width of head, including eyes, .7 mm.; length of antennae .7 mm.

This species has been placed in the genus *Euphalerus* Schwarz rather than in *Diaphorina* Lw. because the thorax is strongly arched, as the tegminae are more rounded and less linear than those included in the latter genus. The head, although not quite so approaching to the vertical as other representatives of *Euphalerus*, is more depressed than most species included in *Diaphorina* Lw.

Described from two males and two females collected on the tree *Gymnosporia laurina* on Mitchell's Pass, Cape Province, at an altitude of about 1,000 feet, 20th January, 1923.

Diaphorina quadramaculata sp. nov.

[Pl. I, figs. 11, 12, 26; Pl. II, figs. 32 (a) (b), 50, 51.]

Colour of dried specimens: Head yellowish, ocelli reddish, eyes dark brown. Pronotum yellowish, praescutum yellowish, with two large subconical dark brown areas in the centre of the anterior

margin, scutum yellowish with two wide, brown, longitudinal stripes, one on each side of the middle, each brown stripe divided in the middle by a narrow more or less distinct yellow longitudinal line; scutellum and other posterior dorsal segments of the thorax pale yellow, lateral sclerites dark brown. Dorsal segments of abdomen and anal valve of female genitalia dark brown to black, ventral segments of abdomen yellowish, ventral segments of female genitalia dark brown at apex, yellowish brown at base. Antennae yellowish, except the two terminal segments, which are dark brown. Metathoracic spurs yellowish at tip, dark brown at base. Legs yellowish, except femora of middle- and hind-legs, which are brownish. Fore-wings subhyaline, with four distinct dark brown spots located as figured, and with four rather indistinct white areas on the inner margin of the wing, the largest at the tip of vein Cu_2 , and each of the others more linear (not lunate) respectively in the centre of the first and second marginal cells, and cell M , all on the margin of the wing. The head and thorax are covered with a white mealy-like secretion.

Head: Somewhat deflexed, punctate, including eyes, somewhat narrower than widest part of thorax. Vertex about one and a half times wider than the length of the middle line, flat, punctate; posterior border not very deeply emarginate, a small linear fovea in each half near the middle, the deepest part forming a tiny circle located posterior to the center, coarsely pubescent. Genae on same level as vertex, directed forward, contiguous for about half their length, at least a third longer than wide, subconical at tip, coarsely and conspicuously pubescent, with setae slightly longer than or about as long as on the vertex. Antennae shorter than width of head, including eyes, slender, the two terminal segments wider than those preceding, with two setae at the apex, one at least three times longer and more pointed than the other; segments subequal in length, the third a little longer than the rest, the two last the shortest and widest, the fifth and seventh the narrowest. Eyes slightly recessive, of medium size.

Thorax somewhat arched, of medium breadth and depth, finely and distinctly punctate, pubescent, with setae shorter than those on the head. Pronotum flat, as wide in the middle as at the sides, with two lateral circular foveae of equal size on each side. Praescutum acutely angled at the sides, viewed dorsally, with no evident median suture. Legs of medium size; hind tibiae with no basal spur, with about eight rather long and slender spines (not so thick as those of *D. brevicornis*) on the margin at the apex, the posterior margin at the apex free of spines; basal segment of hind tarsi with two stout spines; about two and one-third times longer than wide, rounded at apex, not as narrow at the base as most species of this genus; first marginal cell distinctly shorter and wider than the second; stem R about twice as long as, and $M + Cu$ a little longer than, $R + M + Cu$; pterostigma long, narrow, finely pubescent. Veins with two rows of hairs visible with high power of binocular; one row of hairs on the anterior margin extending slightly beyond the tip of Rs . Four dark brown spots, each at or near the forking of veins as illustrated in figure. Venation of hind-wing as figured.

Abdomen sparsely and finely pubescent. Female genitalia: Over half the length of but not as long as the rest of the abdomen; both valves subequal in length, about equally coarsely pubescent.

Male genitalia: Anal valve more than twice as long as the forceps, apical half attenuated and no more than one-quarter the width of the basal half; forceps comparatively short, finger-shaped; forceps and anal valve with short setae.

Measurements.—Female: Length of body 2.45 mm.; length of fore-wing 2.3 mm., width .9 mm.; length of hind-wing 2.2 mm., width .75 mm.; width of head, plus eyes, .65 mm.; length of antennae .4 mm. Male: Length of body 1.95 mm.; length of fore-wing 2.15 mm., width .88 mm.; length of hind-wing 1.9 mm., width .68 mm.; width of head .5 mm.

Described from two males and four females collected at Osplaats, Cape Province, on *Euryops lateriflorus* Less. at an elevation of about 2,500 feet in Karroo area, 3rd February, 1923.

This species resembles *Diaphorina punctulata* Pettey with respect to the head and genitalia, but is distinctly different with respect to the shape and maculation of the fore-wings.

Diaphorina euryopsi sp. nov.

[Pl. I, figs. 13, 14, 27; Pl. II, figs. 33 (a) (b), 56, 60.]

General colour of female (dried specimens): Head and ventral part of abdomen pale yellow, thorax and dorsal part of abdomen, eyes and femora of legs mostly dark brown. Vertex and genae pale yellow, ocelli reddish orange, antennae pale yellow except the three terminal segments which are dark brown. Pronotum pale yellow, with the inner foveae brownish and the outer foveae dark brown. Praescutum yellowish with lateral acute angles brownish and with two large broadly cone-shaped dark brown areas bordering the anterior margin, one on each side of the middle and extending posteriorly beyond the middle. Scutum dark brown, with a broad median longitudinal yellowish stripe and two narrow yellowish brown lateral stripes, one on each side of the middle, not straight, but somewhat curved, and extending through the inner third of the dark brown area. Scutellum yellowish. Remaining dorsal thoracic segments yellowish brown, with dark brown areas laterally. Rest of thorax orange coloured and black laterally, and dark brown to black ventrally. Femora and basal third of tibiae dark brown to black, the rest of legs pale yellow; metacoxal spurs pale yellow, black at base. Dorsal segments of abdomen mostly black laterally and pale yellow dorsally; venter pale yellow with two more or less distinct yellowish orange irregular longitudinal stripes, one on each side of the middle. Genitalia dark brown to black; anus reddish orange. Colour of male similar, but anus not reddish orange.

Head: Somewhat but not greatly deflexed, punctate, including eyes, slightly narrower than widest part of thorax. Vertex a little more than one and a half times wider than the length of the middle line, flat, punctate, posterior border not very deeply emarginate, a small circular fovea in each half near the middle posterior to the center, and a more or less distinct, minute puncture posterior to each fovea, coarsely pubescent. Genae on same level as vertex, directed forward, contiguous at and near the base, a little longer than wide but less than one-third longer, subconical at tip, coarsely pubescent, with setae slightly longer than on the vertex, no longer than or some-

what shorter than the vertex. Antennae shorter than width of head, including eyes, slender, the three terminal segments wider than the preceding, with two short unequal spines at the apex, segments subequal in length, the third a little longer than the rest, the fifth and seventh the narrowest.

Thorax somewhat arched, of medium breadth and depth, finely punctate, pubescent, with setae shorter than those on the head. Pronotum flat, as wide in the middle as at the sides, with two lateral circular foveae on each side, the innermost ones smaller than the outermost. Praescutum acutely angled at the sides, viewed dorsally, with no median dorsal suture, with two distinct short angles, one on each side of the posterior margin. Legs: Of medium size; hind tibiae with no basal spur, with about seven stout, black spines on the margin at the apex, three visible on one side and four on the other, the posterior margin at the apex free of spines; metacoxal spurs of medium size, acutely conical.

Fore-wings: About two and a quarter times longer than wide, rounded at apex, not as narrow at the base as most species of this genus, similar in shape to those of *Diaph. quadramaculata*; first marginal cell shorter and wider than the second; stem R a little longer, and M+Cu one-third shorter, than stem R+M+Cu vein M highly arched near forking of MI+2 and M3+4; pterostigma long, narrow, finely pubescent. Veins with two rows of hairs visible with difficulty with high power of microscope because of the subopaque nature of the wing; one row of hairs on the anterior margin, terminating before the tip of Rs; no distinct maculae.

Abdomen finely pubescent. Female genitalia: Over half the length of but not as long as the rest of the abdomen; ventral valve a little shorter than the dorsal valve, finely and densely pubescent; dorsal valve finely pubescent, with four or five longer setae on each side before the apex. Male genitalia: Anal valve nearly as long as the forceps, apical fourth attenuated, pubescent, setae subequal in length; forceps slightly wider in the middle than at either end, pubescent, with long numerous setae on the inner surface, lateral setae short and subequal.

Measurements.—Female: Length of body 2.4 mm.; length of fore-wing 2.5 mm., width 1 mm.; length of hind-wing 2.1 mm., width .75 mm.; length of antennae .45 mm.; width of head .67 mm. Male somewhat smaller than female.

Described from four males and four females collected at Orchard Siding, Cape Province, on *Euryops* sp. at an elevation of about 2,000 feet, in Karroo veld, 4th February, 1923.

This species resembles *Diaphorina quadramaculata* with respect to the shape of the fore-wings and the head, but it distinctly differs from the latter as follows: The four spots on the wings are wanting, the anal valve of the male is comparatively much shorter, and the genae and vertex are wider and shorter.

Diaphorina multimaculata sp. nov.

[Pl. I, figs. 15, 28; Pl. II, figs. 34 (a) (b), 52, 53.]

General colour of female (specimens in alcohol): Head pale yellow, thorax pale yellow and brown, dorsum of abdomen and geni-

talia dark brown, venter pale yellow. Vertex and genae pale yellow, eyes dark brown, ocelli orange, antennae pale yellow except the two terminal segments. Colour markings of thorax obscure because of long storage of specimens in alcohol. The pronotum appears to be pale yellow. The praescutum pale yellow, with two cone-shaped dark brown areas bordering the anterior margin, one on each side of the middle and extending posteriorly to about the center of the praescutum. Scutum pale yellow with two brown longitudinal stripes on each side of the middle, the innermost of which are narrowly oval in shape, the narrowest end nearest the anterior margin, the outermost stripes widest at the posterior margin. Lateral sclerites of thorax brownish, sutures dark brown. Femora of legs brownish, tibiae and tarsi pale yellow, spines dark brown. Venter of abdomen pale yellow, with two distinct dark brown longitudinal narrow stripes, one on each side of the middle, extending through the second, third and fourth segments, each stripe broken before reaching the posterior margin of each of these segments. Colour of male similar.

Head somewhat but not greatly deflexed, punctate; including eyes somewhat narrower than the broadest part of thorax. Vertex about twice as wide as the length of the middle line, rather deeply emarginate at the posterior margin, a deep circular fovea on each side near the posterior margin and near the middle of each half, a shallow depression extending forward from the fovea towards the middle line but not attaining it; coarsely pubescent. Genae on the same level as the vertex, contiguous at or near the base, about as wide as long, somewhat shorter than the vertex, diverging outwards slightly, a little more coarsely pubescent than the vertex. Antennae shorter than width of head, including eyes, slender, the three terminal segments wider than the preceding, with two unequal spines at the apex; segments subequal in length, the third a little longer than the rest, the fifth and seventh the narrowest, the tenth or terminal one the shortest.

Thorax somewhat arched, robust, finely punctate, pubescent, the setae shorter than those of the head. Pronotum flat, viewed dorsally, of equal width throughout, with two lateral circular foveae on each side, the inner ones smaller than the outer. Praescutum acutely angled at the sides, with no median dorsal suture, slightly angled on each side of the posterior margin. Legs of medium size; hind tibiae without a basal spur, with about seven not very short, stout black spines on the margin at the apex, three visible on one side and four on the other, the posterior margin at the apex free of spines; metacoxal spurs of medium size, acutely conical.

Fore-wings a little less than two and a half times as long as wide at widest part, rounded at apex, narrow at base; first marginal cell shorter than the second, and about twice as wide as the second; stem R about one and a half times as long as $R + M + Cu$; $M + Cu$ about one-third shorter than $R + M + Cu$; pterostigma long, narrow, pubescent. Veins with two rows of hairs visible with high power of binoculars, a row of hairs visible on the costal, outer and inner margins of the wing. Maculae numerous and scattered, but concentrated mostly in the outer or apical half of the wing; three areas on the outer margin of the wing, each respectively near the centre of

the first marginal cell, cell M, and the second marginal cell are somewhat more hyaline than the area of the remaining outer margin of the wing. Venation of hind-wing as figured.

Abdomen pubescent. Female genitalia large, somewhat longer than the rest of the abdomen; ventral valve shorter than the dorsal and rather widely separated from the latter at the apex, rather sparsely pubescent, with subequal short setae; dorsal valve of the usual shape, rather sparsely pubescent, with several lateral setae somewhat longer than the rest. Male genitalia: Anal valve about a third longer than the forceps, pubescent, setae subequal in length, of the usual shape; forceps shaped as figured, a little narrower at apex and base than the middle, setae on inner surface longer than on the outer surface.

Measurements.—Female: Length of body 2 mm.; length of fore-wing 2.4 mm., width .9 mm.; length of hind-wing 2.05 mm., width .77 mm.; length of antennae .35 mm. Male somewhat smaller than female.

Described from three female and four male specimens collected on *Euryops tenuissimus* Less. at Osplaats, Cape Province, in Karroo Veld at an elevation of about 2,500 feet.

This species resembles *Diaphorina euryopsi* with respect to the shape and pubescence of the head and thorax, the legs, antennae and genitalia, but differs from the latter species in the following respects: The fore-wings have numerous distinct maculae, and the first marginal cell is comparatively much wider than the second, the vein M is less highly arched, the genae are less broadly rounded at the apex and diverge more outwards, and the praescutum is less prominently angled on the posterior lateral margin.

Diaphorina similis sp. nov.

[Pl. I, figs 16, 25; Pl. II, figs. 35 (a) (b), 57, 58.]

General colour of female (dried specimens) obscured in most specimens by the presence of a white mealy-like excretion covering the whole insect, forming on the thorax a longitudinal median dorsal white stripe extending through the pronotum and praescutum. Two specimens, which have no mealy-like excretion on the body are coloured as follows:—Vertex, genae and pronotum pale yellow, ocelli yellowish brown, eyes dark brown, antennae pale yellow except the two terminal or ninth and tenth segments, which are dark brown. Praescutum pale yellow with two broad, straight, orange-brown, longitudinal stripes, one on each side of the middle, extending from the anterior margin but not attaining the posterior margin. Scutum pale yellow with four longitudinal brown stripes, two on each side of the middle, the outermost of which are triangular shaped, the apex of which triangle attains the anterior margin of the scutum, and the base of which attains the posterior margin. Scutellum pale yellow. The metathorax is dark brown ventrally, with pale yellow metacoxal spurs. The remainder of the thorax and the legs are pale yellow. Spines on hind tibiae and tarsi dark brown. Venter of abdomen pale yellow; dorsal portion mostly dark brown, especially laterally, but more yellowish dorsally except the posterior segment,

which is wholly dark brown; anal valve of genitalia dark brown, with anal ring yellowish; ventral valve pale yellow except apex, which is dark brown.

Head somewhat but not greatly deflexed, punctate, including eyes somewhat narrower than broadest part of thorax. Vertex about one and a half times wider than the length of the middle line, posterior margin rather deeply emarginate, two circular foveae on each side near the posterior margin, and in the middle of each half, a shallow linear depression extending from the fovea towards the middle line but not attaining it, coarsely pubescent. Genae on the same level as the vertex, contiguous at or near the base, distinctly a little longer than wide, diverging outwards slightly, about as coarsely pubescent as the vertex. Eyes much wider posteriorly than anteriorly. Antennae slightly longer than half of the width of the head, including the eyes, slender, the three terminal segments wider than the preceding, with two short unequal spines at the apex, segments subequal in length, the third a little longer than the rest, the fifth and seventh the narrowest, the terminal one the shortest.

Thorax somewhat arched, robust, finely punctate, pubescent, the setae almost as long as those on the head. Pronotum viewed dorsally as wide as the middle at the sides, but narrower between the middle and sides, with two lateral subequal foveae on each side. Praescutum acutely angled laterally, with no evident median dorsal suture, posterior margin slightly angled laterally. Legs of medium size; hind tibiae with no basal spur, with six to eight (generally eight) rather long stout black spines on the margin at the apex, three visible on the outer side and four visible on the inner side when viewed laterally; metacoxal spurs of medium size, acutely conical.

Fore-wings practically three times longer than wide at widest part, rounded at apex, not very narrow at base comparatively; the first marginal cell shorter and about one and a half times wider than the second. Stem R a little more than one and a third times longer than R+M+Cu. M+Cu a little more than half as long as R+M+Cu. Pterostigma long, narrow, pubescent. Veins with two rows of hairs, visible with high power of binoculars. A row of hairs visible on the costal, outer and inner margins of the wing, more easily seen on the costal margin. Wings more maculated in the apical third, with three more or less distinct hemispherical or lunulate hyaline areas, bordering the margin, each respectively in the first marginal cell, the second marginal cell and cell M.

Abdomen pubescent. Female genitalia a little longer than the rest of the abdomen; ventral valve a little shorter than the dorsal, contiguous with the latter at the apex, pubescent, with subequal short setae; dorsal valve of the usual form, pubescent, with several lateral setae somewhat longer than the rest. Male genitalia: pubescent; anal valve about a quarter longer than the forceps; forceps viewed laterally, broadly rounded at apex, basal third somewhat narrower than the rest; setae on inner surface longer than the others.

Measurements.—Female: Length of body 2.1 mm.; length of fore-wing 2.2 mm.; width .74 mm.; length of hind-wing 1.95 mm.; width .62 mm.; width of head .55 mm.; length of antennae .35 mm. Male somewhat smaller than female.

Described from three females and five males collected on *Euryops tenuissimus* Less. at Osplaats, Cape Province, in Karroo veld, at an elevation of about 2,500 feet, 3rd February, 1923.

This species is very similar to *Diaphorina multimaculata* but differs from the latter in having a different distribution of maculae in the fore-wing, a more elongate fore-wing, somewhat longer genae and vertex, and the male has a shorter and stouter anal valve and forceps. The forceps is narrowly rounded at the apex, while that of the latter is broadly rounded.

Diaphorina brevicornis sp. nov.

[Pl. I, figs. 17, 18; Pl. II, figs. 36 (a) (b), 59.]

General colour of female (dry specimens):—Head yellowish brown, thorax brownish with dark brown to black rather indistinct stripes on the praescutum and scutum, dorsum of abdomen blackish, venter brownish, genitalia dark brown with yellowish anus and anal ring. Vertex brownish with dark brown foveae, genae brownish, pale yellowish at apex, eyes brown, ocelli dark brown, antennae yellowish brown with three terminal segments, dark brown, clypeus black. Pronotum yellowish brown with two lateral brown foveae on each side. Praescutum brown, with two broad rather indistinct black longitudinal stripes, blackest anteriorly, the one separated from the other by a median brown narrow line. Praescutum brown with two lateral indistinct, black, longitudinal stripes on each side of the middle, the innermost of which is more or less elliptical in shape. Lateral sclerites of thorax brown with dark brown sutures. Femora of all legs dark brown, basal two-thirds of tibiae of first and second pair of legs dark brown, the apical third and tarsi yellowish; hind tibiae and tarsi yellow. Venter of abdomen yellowish, with a lateral dark brown longitudinal narrow stripe on each side of the middle extending through the second, third and fourth segments, broken between each segment. Metacoxal spurs pale yellow.

Head somewhat but not greatly deflexed, finely punctate, including eyes, somewhat narrower than the broadest part of the thorax. Vertex, excluding the eyes, about twice as wide as the length of the median suture, deeply emarginate at the posterior margin, coarsely pubescent, a distinct circular fovea on each side near the posterior margin and near the middle of each half, with no shallow linear depression. Genae on the same level as the vertex, contiguous at or near the base, about as wide as long, somewhat shorter than the vertex, diverging slightly outwards, a little more coarsely pubescent than the vertex. Antennae only slightly longer than half the width of the head, including the eyes, slender, the three terminal segments wider than the preceding, with two unequal spines at the apex, segments subequal in length, the fourth a little longer than the rest, the fifth and seventh the narrowest. Eyes slightly recessive, of medium size.

Thorax somewhat arched, robust, finely punctate, pubescent, the setae shorter than those of the head. Pronotum flat, viewed dorsally, of equal width throughout, with two lateral subequal circular foveae on each side, each about as wide as the length of the pronotum. Praescutum viewed dorsally, acutely angled at the sides, with no

median dorsal line, distinctly angled on each side of the posterior margin. Legs of medium size, hind tibiae without a basal spur, with about eight very short stout black spines on the margin at the apex, four visible on each side, the posterior margin at the apex free of spines; metacoxal spurs of medium size, acutely conical.

Fore-wings slightly less than two and a half times as wide as their widest part, rounded at apex, narrow at base; first marginal cell a little shorter and one-quarter wider than the second at the apex; stem R about one-fifth longer than $R+M+Cu$; $M+Cu$ about one-third the length of $R+M+Cu$; pterostigma long, narrow pubescent. Veins with two rows of hairs visible with high power of binoculars, a row of hairs visible on the costal, outer and inner margins of the wing. Maculae numerous and scattered except at and near the base of the wing, with a large hyaline area near the apex of cell R, extending well into cell Rs, and with another large hyaline area at the apex of cell Cu and a smaller area near the apex of vein Cu_2 in the first marginal cell.

Abdomen pubescent. Female genitalia about as long as the rest of the abdomen; ventral valve slightly shorter than the dorsal, pubescent; anal valve of the usual shape, pubescent, with several lateral setae somewhat longer than the rest.

Measurements of female: Length of body 2.1 mm.; length of fore-wing 2.3 mm., width .95 mm.; length of hind-wing 2.05 mm., width .75 mm.; length of antennae .36 mm.; width of head, including eyes, .7 mm.

Described from five females collected at Osplaats, Cape Province, on a flowering shrub at an elevation of about 2,500 feet in Karroo Veld, 3rd February, 1923.

This species resembles *Diaphorina multimaculata* with respect to size of body and wings, and shape of vertex and genae, but it distinctly differs from the latter with regard to the wing markings and the shape of the praescutum. It has shorter, thicker spines on the hind legs. It is similar to *Diaphorina carissae* with respect to wing markings, but differs from the latter especially in size and in having genae comparatively larger in proportion to the size of the vertex.

No males available for description.

Euphalerus ericae sp. nov.

[Pl. I, fig. 19; Pl. II, figs. 37, 61, 62.]

Colour of female (dry specimens):—Vertex pale yellowish-orange, genae pale yellow, tibiae pale yellow, tarsi darker, femora pale yellow or darker in one specimen; metacoxal spurs whitish. Antennae pale yellow, three terminal segments brown. Thorax orange-brown, praescutum with indistinct dark brown area occupying the anterior third dorsally, more or less divided in the middle by a median orange-brown stripe, scutum with two lateral indistinct longitudinal dark brown stripes on each side dorsally, the innermost narrower than the outermost, scutellum yellowish. Dorsum of abdomen orange-brown, venter pale yellow. Genitalia pale yellow with apical third black, anal ring orange.

Head considerably deflexed, finely punctate, including eyes, considerably narrower than the widest part of thorax. Vertex, excluding the eyes, about twice as wide as the length of the median suture and about one-fourth longer than the genae, deeply emarginate at the posterior margin, with long, prominent, comparatively few setae, and with a linear fovea on each half extending from near the middle of the posterior margin anteriorly towards the middle suture, but not attaining the anterior margin. Genae on the same level as the vertex, contiguous at the base, bluntly conical, not diverging outwards, prominent setae as long as those on the vertex. Antennae about one and a half times longer than the width of the head, including the eyes, slender, the three terminal segments thicker than the rest, with two unequal spines on the tenth or terminal one, all segments subequal, the third not longer than the rest, the seventh the narrowest. Eyes slightly recessive, black, comparatively small, ovate, narrower anteriorly.

Thorax well arched, robust, finely punctate, very coarsely and rather sparsely pubescent, the setae as long as those of the head. Pronotum flat when viewed dorsally, with two circular foveae on each side, the innermost the smallest. Praescutum, viewed dorsally, acutely angled at the sides, with no median dorsal line, slightly angled on each side of the posterior margin. Legs of medium size; hind tibiae without a basal spur, with six to seven stout, not very short, black spines on the margin at the apex, the posterior margin at the apex free of spines; metacoxal spurs of medium size, slender, acutely conical.

Fore-wings a little less than two and a half times as long as wide, rounded at apex, narrower at base, maculated in all cells but $C+Sc$, the maculae forming rather large areas except in the anal cell and cell Cu. First marginal cell a little shorter and a little wider than the second. Stem R about twice as long as $R+M+Cu$, $M+Cu$ about as long as $R+M+Cu$; pterostigma long, fairly narrow, not visibly pubescent except a few setae on the margin. Veins with two rows of small hairs visible with difficulty with high power of binoculars, and visible only on the underside of the wing. Abdomen pubescent. Female genitalia about as long as rest of abdomen; ventral valve slightly shorter than the dorsal, pubescent, with setae numerous and as long as those of the ventral valve. Setae of anal valve subequal. Male genitalia of the usual shape, pubescent; the anal valve rather short, about the same length as the forceps, rather broad at the apex.

Measurements of female:—Length of body 1.6 mm.; length of fore-wing 1.67 mm., width .7 mm.; length of antennae .32 mm.; width of head, including eyes, .45 mm.

Described from two females and one male collected by the writer on *Erica mammosa* L. at Viljoen's Pass, Cape Province, 12th January, 1923, at an elevation of about 2,000 feet.

This species has a more robust and highly arched thorax, a somewhat more depressed head and wider, more rounded, fore-wings than the members of the genus *Diaphorina* and in these respects approaches the characteristics typical of the genus *Euphalerus*. It resembles *Diaphorina fusca* with respect to wing venation and maculation, but

differs particularly from the latter in having a comparatively broader and deeper thorax, longer genae, a more depressed head, wider, more rounded, fore-wings, and longer more prominent setae on the head and thorax.

Diaphorina fusca sp. nov.

[Pl. I, fig. 20; Pl. II, figs. 38 (a) (b), 63, 64.]

Colour of female (dry specimens):—Vertex reddish-orange, genae yellowish, eyes black, clypeus black. Antennae yellowish, with three terminal segments dark brown. Pronotum reddish-orange with posterior margin dark brown dorsally. Praescutum reddish-orange. Scutum reddish-orange with two more or less distinct black longitudinal stripes on each side of the middle, the innermost somewhat narrower than the outermost. Scutellum yellowish. Femora blackish, tibiae and tarsi pale yellow; metacoxal spurs pale yellow, brownish at base. Dorsum of abdomen reddish-orange, venter pale yellow with broad more or less distinct and continuous broad orange median longitudinal stripe. Genitalia yellowish-brown, black at apex; anal plate reddish-orange.

Head somewhat but not greatly deflexed, distinctly punctate, including the eyes, slightly narrower than the widest part of the thorax. Vertex, excluding the eyes, slightly more than twice as wide as the length of the median suture, at least one-third longer than the genae, with minute setae visible only with high power of binoculars, a fovea in each half surrounded with a shallow not linear depression located near the posterior margin in the middle of each half. Genae broadly oval, about as wide as long, contiguous at the base, finely pubescent, the setae minute. Antennae about as long as or slightly longer than half the width of the head, including the eyes, slender, the three terminal segments thicker than the rest, with two unequal spines on the tenth or terminal one, all segments subequal, the third not longer than the rest, the seventh the narrowest. Eyes slightly recessive, black, comparatively large, broadly elliptical viewed anteriorly.

Thorax somewhat but not greatly arched, not very robust, distinctly punctate, not pubescent. Pronotum flat, viewed dorsally, with two circular subequal foveae on each side. Praescutum, viewed dorsally, acutely angled at the side, with no median line, slightly angular on each side of the posterior margin. Legs of medium size; hind tibiae without a basal spur, with five to eight stout, not very short spines on the margin at the apex, the posterior margin at the apex free of spines; metacoxal spurs of medium size, slender, acutely conical.

Fore-wings a little more than twice as long as wide, elliptical, rounded at apex, not very narrow at base; first marginal cell somewhat shorter and only slightly wider than the second. Stem R about one-third longer than R+M+Cu. M+Cu about one-third shorter than R+M+Cu; pterostigma long, narrow, not pubescent. No hairs on veins. Fore-wings fuscous except cell C+Sc, which is hyaline, maculated. Cells R_1 , R_s , M, first and second marginal cells maculated, the maculae forming, on the whole, large areas, a more or less hyaline semi-circular spot on the margin of the wing in cells R_s , M and first and second marginal cells.

Abdomen not pubescent. Female genitalia about as long as the rest of abdomen, or slightly larger, of normal shape; ventral valve finely pubescent, the anal valve with longer, but not very numerous subequal setae. Male genitalia pubescent, the setae subequal in length; the anal valve distinctly longer than the forceps, with narrow apical third, considerably wider near the base.

Measurements:—Length of body, female 1.55 mm., male 1.1 mm.; length of fore-wing, female 1.5 mm., male 1.5 mm.; width of fore-wing, female .6 mm., male .6 mm.; length of antennae, female .25 mm., male .25 mm.

Described from four females and two males collected by the writer on *Erica mammosa* L. at Viljoen's Pass, Cape Province, January, 1923, at an elevation of about 2,500 feet.

This species is quite typical of the genus *Diaphorina* and is distinguished by the fuscous fore-wings and the comparatively fine setae on the head and absence of setae on thorax. It is different from most, if not all, other members of this genus in having no hairs on the veins of the fore-wings.

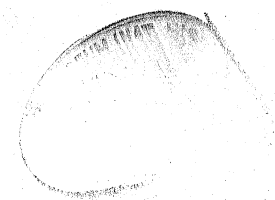
Spanioza erythrae (Del Guercio).

Boselli, Boll. Lab. Zool., Portici, xxiv, 228 (1930).

Trioza merwei Petzey, S.A. Jnl. Nat. Hist., IV, 30 (1923).

This species has been placed in the genus *Spanioza* Enderlein, which includes those formerly placed in *Trioza* having the fore-wings with Rs straight, or concave anteriorly and terminating in the anterior margin of the wing, proximad of the forking of $M1+2$ and $M3+4$ (Psyllidologia VIII., Ent. Mitt., XV, 1926, nr. 5/6).

It was originally described from Erythrea, North Africa, and is recorded as a pest of citrus in Kenya and in South Africa.



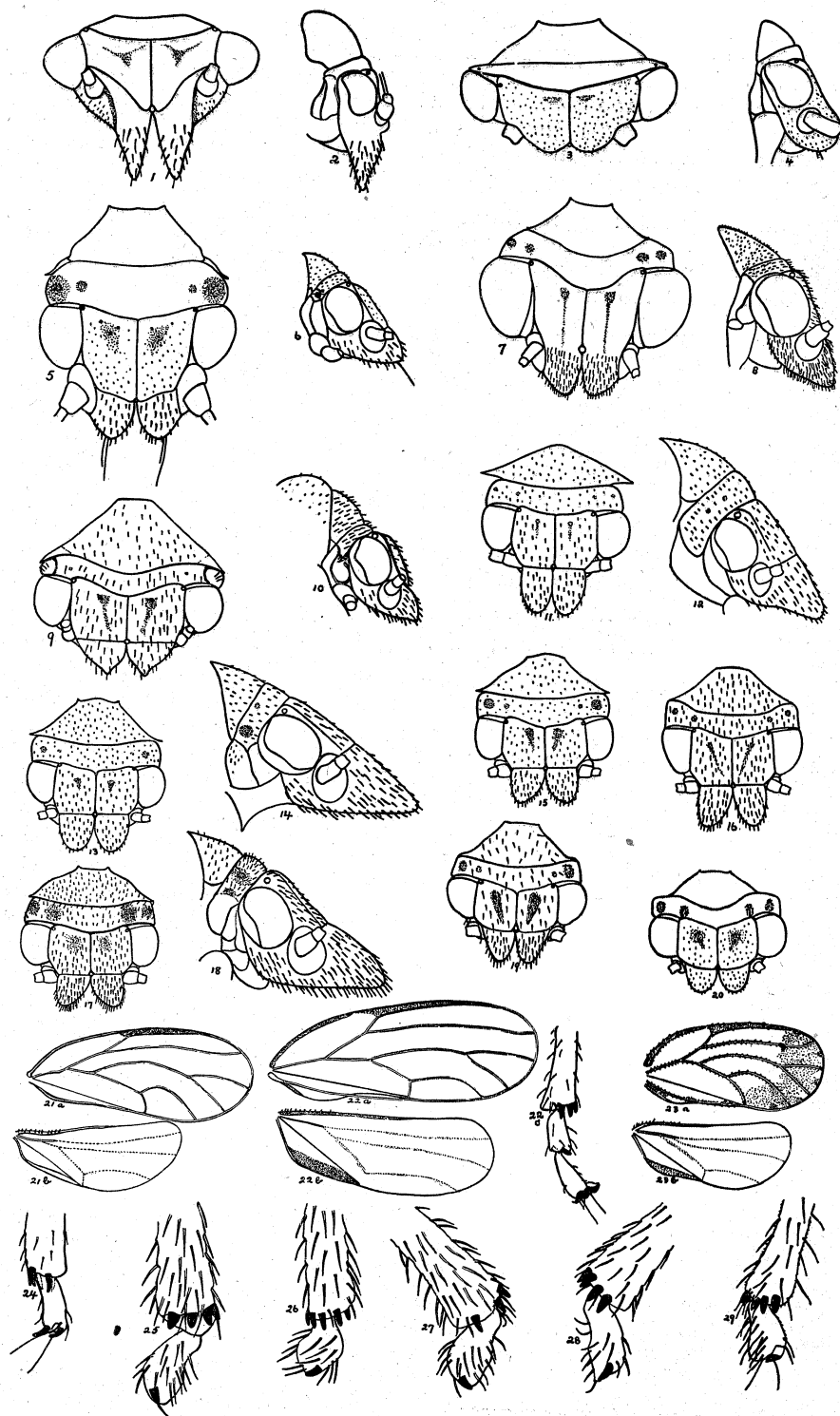


PLATE I.

S.A. PSYLLIDAE.

PLATE I.

1. *Psylla distincta*, sp. nov.
2. *Psylla distincta*, sp. nov.
3. *Paurocephala hottentotti*, sp. nov.
4. *Paurocephala hottentotti*, sp. nov.
5. *Arytaina karrooensis*, sp. nov.
6. *Arytaina karrooensis*, sp. nov.
7. *Arytaina capensis*, sp. nov.
8. *Arytaina capensis*, sp. nov.
9. *Euphalerus valens*, sp. nov.
10. *Euphalerus valens*, sp. nov.
11. *Diaphorina quadramaculata*, sp. nov.
12. *Diaphorina quadramaculata*, sp. nov.
13. *Diaphorina euryopsi*, sp. nov.
14. *Diaphorina euryopsi*, sp. nov.
15. *Diaphorina multimaculata*, sp. nov.
16. *Diaphorina similis*, sp. nov.
17. *Diaphorina brevicornis*, sp. nov.
18. *Diaphorina brevicornis*, sp. nov.
19. *Euphalerus ericae*, sp. nov.
20. *Euphalerus fusca*, sp. nov.
21. *Psylla distincta*, sp. nov. (a) Fore-wing; (b) Hind-wing.
22. *Paurocephala hottentotti*, sp. nov. (a) Fore-wing; (b) Hind-wing; (c) Hind-leg.
23. *Arytaina karrooensis*, sp. nov. (a) Fore-wing; (b) Hind-wing.
24. *Psylla distincta*, sp. nov. Hind-leg; apex of tibia and first segment of tarsus (inner aspect).
25. *Diaphorina brevicornis*, sp. nov. Hind-leg; apex of tibia and first segment of tarsus (outer aspect).
26. *Diaphorina quadramaculata*, sp. nov. Hind-leg; apex of tibia and first segment of tarsus (inner aspect).
27. *Diaphorina euryopsi*, sp. nov. Hind-leg; apex of tibia and first segment of tarsus (outer aspect).
28. *Diaphorina multimaculata*, sp. nov. Hind-leg. Apex of tibia and first segment of tarsus (inner aspect).
29. *Euphalerus valens*, sp. nov. Hind-leg; apex of tibia and first segment of tarsus (inner aspect).

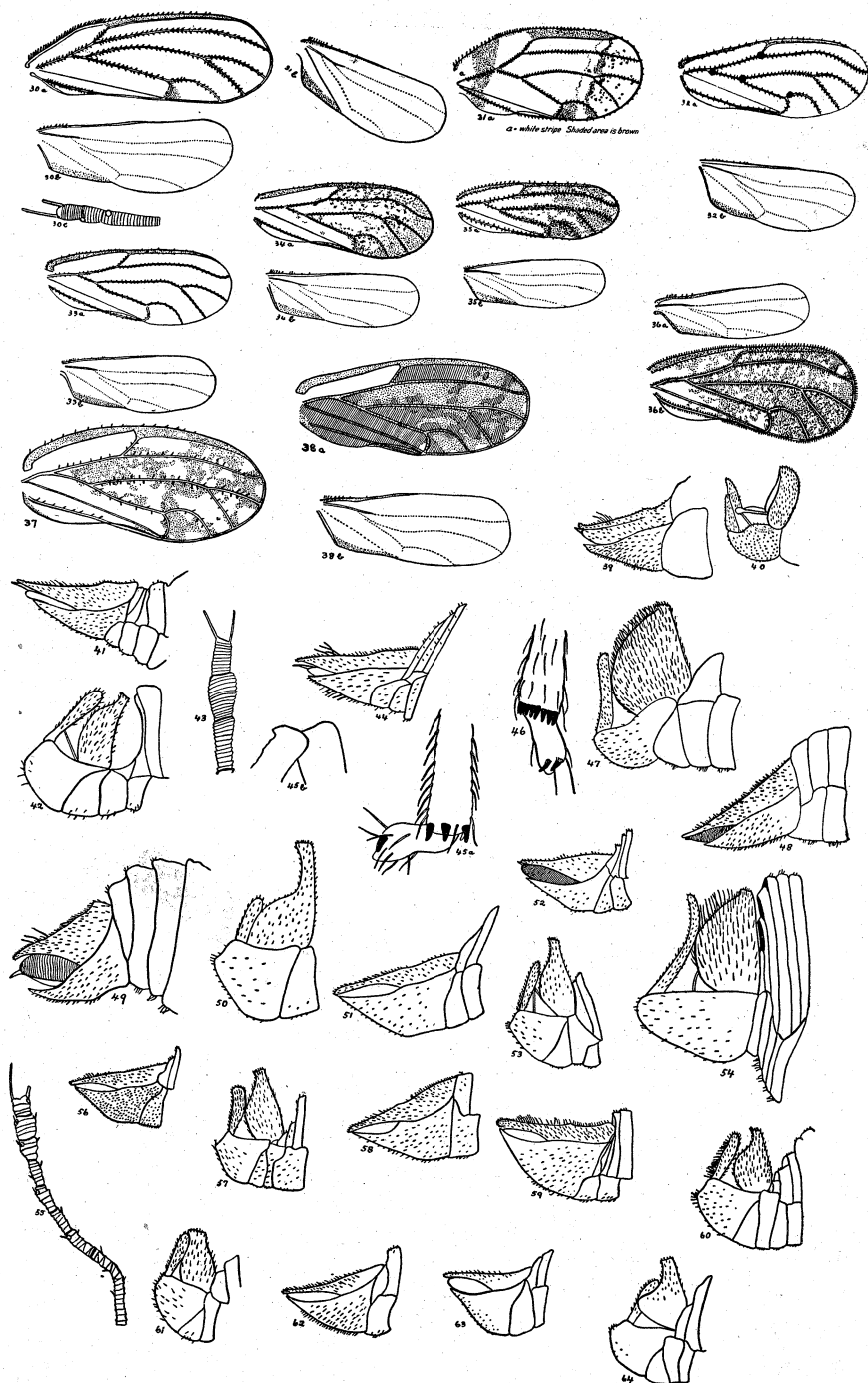


PLATE II.

S.A. PSYLLIDAE.
PLATE II.

30. *Arytaina capensis*, sp. nov. (a) Fore-wing; (b) Hind-wing; (c) Antenna.
31. *Euphalerus valens*, sp. nov. (a) Fore-wing; (b) Hind-wing.
32. *Diaphorina quadramaculata*, sp. nov. (a) Fore-wing; (b) Hind-wing.
33. *Diaphorina euryopsi*, sp. nov. (a) Fore-wing; (b) Hind-wing.
34. *Diaphorina multimaculata*, sp. nov. (a) Fore-wing; (b) Hind-wing.
35. *Diaphorina similis*, sp. nov. (a) Fore-wing; (b) Hind-wing.
36. *Diaphorina brevicornis*, sp. nov. (a) Fore-wing; (b) Hind-wing.
37. *Euphalerus ericae*, sp. nov. Fore-wing.
38. *Diaphorina fusca*, sp. nov. (a) Fore-wing; (b) Hind-wing.
39. *Psylla distincta*, sp. nov. Female genitalia.
40. *Psylla distincta*, sp. nov. Male genitalia.
41. *Paurocephala hottentotti*, sp. nov. Female genitalia.
42. *Paurocephala hottentotti*, sp. nov. Male genitalia.
43. *Paurocephala hottentotti*, sp. nov. Terminal segments of antenna (female).
44. *Arytaina karrooensis*, sp. nov. Female genitalia.
45. *Arytaina karrooensis*, sp. nov. (a) Apex of hind-leg of tibia and basal segment of tarsus; (b) Base of hind tibia and apex of femur.
46. *Arytaina capensis*, sp. nov. Hind-leg; apex of tibia and basal segment of tarsus (inner aspect).
47. *Arytaina capensis*, sp. nov. Male genitalia.
48. *Arytaina capensis*, sp. nov. Female genitalia.
49. *Euphalerus valens*, sp. nov. Female genitalia.
50. *Diaphorina quadramaculata*, sp. nov. Male genitalia.
51. *Diaphorina quadramaculata*, sp. nov. Female genitalia.
52. *Diaphorina multimaculata*, sp. nov. Female genitalia.
53. *Diaphorina multimaculata*, sp. nov. Male genitalia.
54. *Euphalerus valens*, sp. nov. Male genitalia.
55. *Euphalerus valens*, sp. nov. Eight terminal segments of antenna (female).
56. *Diaphorina euryopsi*, sp. nov. Female genitalia.
57. *Diaphorina similis*, sp. nov. Male genitalia.
58. *Diaphorina similis*, sp. nov. Female genitalia.
59. *Diaphorina brevicornis*, sp. nov. Female genitalia.
60. *Diaphorina euryopsi*, sp. nov. Male genitalia.
61. *Euphalerus ericae*, sp. nov. Male genitalia.
62. *Euphalerus ericae*, sp. nov. Female genitalia.
63. *Diaphorina fusca*, sp. nov. Female genitalia.
64. *Diaphorina fusca*, sp. nov. Male genitalia.