

QUADRYOPS, NEW GENUS, AND THREE NEW
SPECIES OF ARBOREAL DRYOPIDAE
(INSECTA: COLEOPTERA) FROM
PANAMA AND ECUADOR

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Abstract.—A new genus, *Quadryops* (Coleoptera: Dryopidae), with three new species, *Q. chrysosetosus*, *Q. quasimodoi*, and *Q. obtusetosus* are described. Two of the species are from Panama: *Q. chrysosetosus* from the canopy of a lowland *Leuhea seemanni* forest (100 meters) and *Q. quasimodoi* from forest floor litter and wood chips from a montane logging area (1720 meters). The third species, *Q. obtusetosus*, was collected in Ecuador by sweeping forest vegetation at night (300 meters). The species are illustrated by scanning electron micrographs and line drawings. A key to the species and a tabular comparison of the states of selected taxonomic characters are given.

Members of *Quadryops*, new genus, described below are unique among known Dryopidae in that the tarsi have four articles; all other described dryopid species have five articles. The most obvious diagnostic feature of members of *Quadryops*, however, is the shape of the pronotum which appears to be inflated due to the lobate discal area (Fig. 3). Development of a median longitudinal depression on the pronotum, and hence division of the pronotal prominence into two lobes, varies among the three species of *Quadryops* now known.

Members of *Quadryops* have two types of pubescence. Most of the body is clothed in indumentum consisting of aciculate hairlike setae whose density varies among the species. This indumentum abrades moderately easily, leaving distinctive punctures (termed micropunctures in the descriptions that follow; Fig. 39). In addition to indumentum, the body has longer, sparser, erect or suberect setae which differ in form among the three species. In *Q. chrysosetosus*, these setae are acute at the apex, enlarged subapically and have ridges (Fig. 19); erect setae of *Q. obtusetosus* are blunt and enlarged apically and have ridges (Figs. 6, 21); in the third species currently known, *Q. quasimodoi*, the holotype is badly abraded and the few remaining erect setae are blunt but not enlarged apically (Fig. 46). These erect setae emerge from punctures much larger than those of the indumentum; punctures (termed macropunctures in the descriptions that follow) are round and flat-bottomed on the elytra of *Q. obtusetosus*, and setal sockets fit closely around the setae (Figs. 20, 21). The elytral macropunctures of *Q. chrysosetosus*, contrastingly, are round-bottomed and have elongate sockets which would allow forward and backward movement of the setae but restrict side to side motion (Fig. 18).

Metathoracic wings are fully developed in the three species of *Quadryops*. The wings of *Q. chrysosetosus* and *Q. quasimodoi* are similar in that both have a well-developed vein 2A₁, whereas wings of *Q. obtusetosus* lack that vein (Figs. 30, 31, 32). The antennae of all three species have 11 articles and well-developed sensilla in both sexes. The sensilla are of two types, simple and dendritic (Figs. 26, 28,

29). A comparison of the states of selected characters of the three species is given in Table 1.

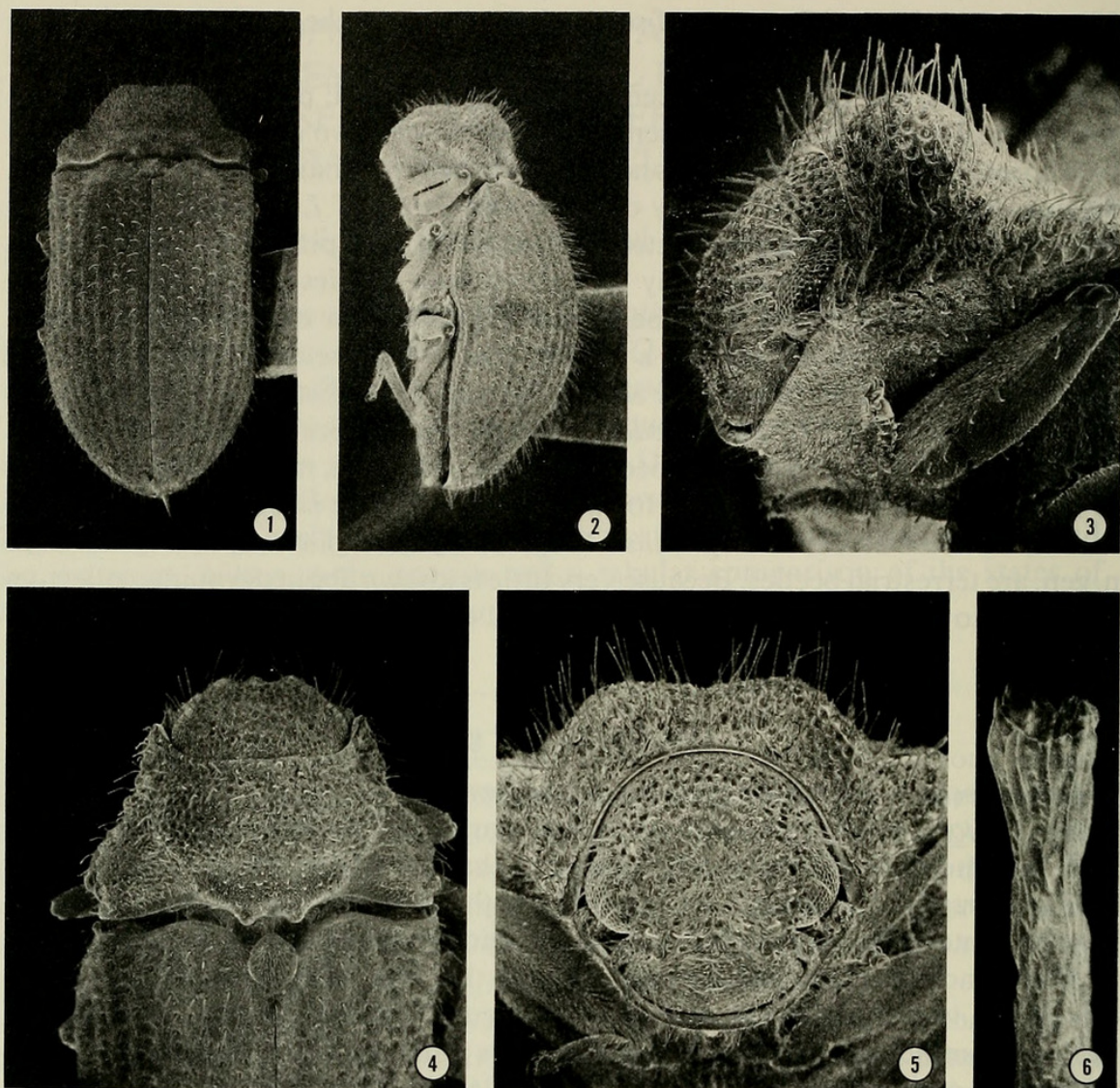
Members of this genus have been very rarely collected; presently only a single specimen of each species is represented in collections. Two species were collected in arboreal habitats: *Q. chrysosetosus* was collected in Panama during a pyrethrin fogging experiment in the canopy of a lowland forest of *Luehea seemanni* (100 meters); *Q. obtusetosus* was collected in Ecuador by sweeping forest vegetation at night. *Quadryops quasimodoi* may be a forest floor species, as the single known specimen was collected in Panama by berlese extraction of concentrated forest floor litter and wood chips from a logging area (1720 meters). However, a vast amount of debris from the canopy accumulates on the forest floor of logging areas and it is possible that *Q. quasimodoi* is an arboreal species like its congeners.

Although the habits of dryopid beetles are poorly known, most genera are known to inhabit semiaquatic habitats. However, several genera such as *Geoparnus* Besuchet, *Sostea* Pascoe, *Protoparnus* Sharp, *Oreoparnus* Deleve, and *Quadryops* n. gen. are terrestrial beetles. Because very little is known about dryopids, collectors are urged to record habitats and all biological data possible when the beetles are found.

Quadryops, new genus

Type-species.—*Quadryops chrysosetosus*, new species.

Description.—Body form oblong, robust, markedly convex dorsally; integument with indumentum of moderately long setae that vary from dense to moderately sparse; dorsally and sometimes ventrally with distinctive suberect setae which may be acute at the apex and thickened subapically, blunt and thickened apically, or blunt and not thickened apically (Figs. 6, 19, 46). Head retractile; eyes well developed, widely separated, pubescent. Clypeus expanded laterally. Labrum partially or completely concealed beneath clypeus in dorsal view. Antennomeres 11, with setae and sensilla as illustrated (Figs. 26, 28, 29); head concave between raised and widely separated antennal acetabulae. Labial palpomeres 3 (Fig. 33). Maxillary palpomeres 4 (Figs. 34, 35). Pronotum with discal area very convex; apical $\frac{2}{3}$ – $\frac{3}{4}$ lobate with distinctly or indistinctly developed median longitudinal depression which divides prominence into a lobe on each side (Figs. 5, 36); posterior part of pronotum broad lateral to elevated disc, subtriangular and slightly concave (Figs. 4, 36); lateral margin crenulate, sometimes angulate; prescutellar emargination well developed. Elytra width at base equals basal width of pronotum, parallel-sided, very convex; each elytron with nine more or less developed striae; margin sinuate in lateral view, basal half depressed to form vertical side of elytron (Fig. 2); epipleuron horizontal, except nearly vertical at subacute elytral apex. Scutellum large, produced anteriorly. Metathoracic wings present. Prosternum long in front of procoxae; process carinate, apex deflexed and inserted into deep mesosternal fovea; short longitudinal carina in front of procoxae on each side of prosternal process (Fig. 41). Trochantin exposed. Mesosternum moderately raised between mesocoxae. Distance separating mesocoxae greater than or less than that separating metacoxae. Metasternum with median longitudinal sulcus which may or may not be extended forward onto intercoxal process. Metacoxae moderately excavated to receive metatibiae. Legs short; tibiae slightly longer than femora;



Figs. 1-6. *Quadryops obtusetosus*: 1, Habitus, dorsal view; 2, Habitus, lateral view; 3, Head and prothorax, oblique view; 4, Head, pronotum and anterior region of elytra, dorsal view; 5, Head and prothorax, anterior view; 6, Apex of pronotal seta.

tarsus very short, about $\frac{1}{3}$ length of tibia, with four articles, combined lengths of articles 1, 2 and 3 approximately equal to length of article 4 (Fig. 23).

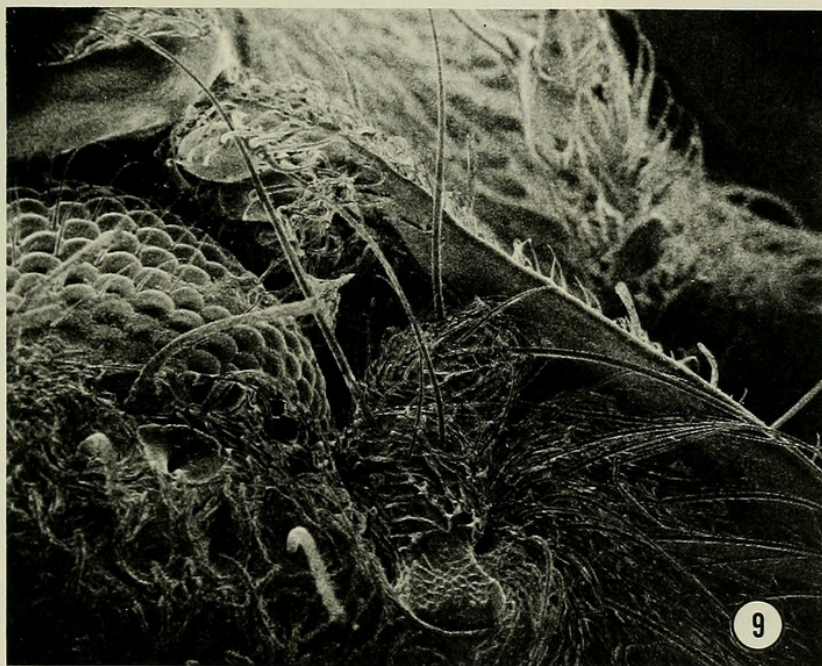
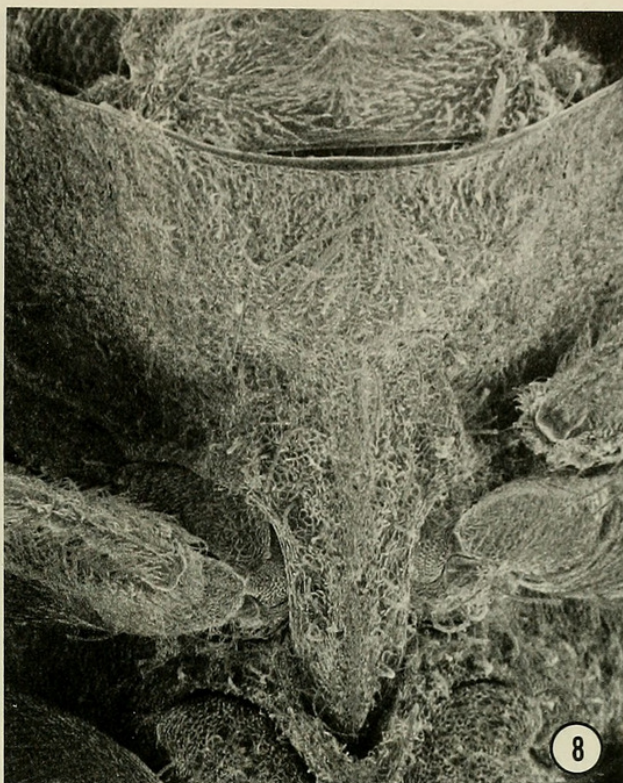
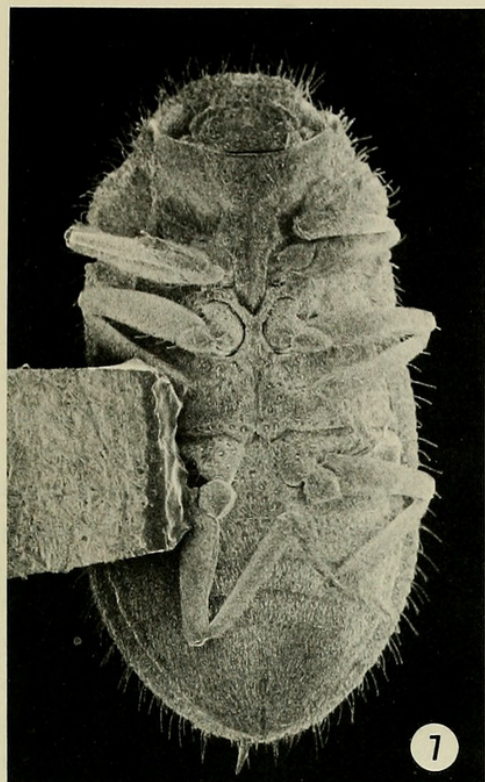
Etymology.—Greek *quad* (four), plus *dryops* (referring to family name). The tarsi of members of *Quadryops* have four articles.

Quadryops chrysosetosus, new species

Figs. 10-19, 22, 26, 28, 32, 35

Type-data.—Holotype male: Panama, Canal Zone, 5.0 mi. NW Gamboa, 09°10'N, 079°45'W, 100 meters; canopy pyrethrin fogging experiment in *Luehea seemanni*; sample 1-2a, 12 Jul 1976, Montgomery and Lubin collectors. Deposited in the National Museum of Natural History, Smithsonian Institution; type no. 100893.

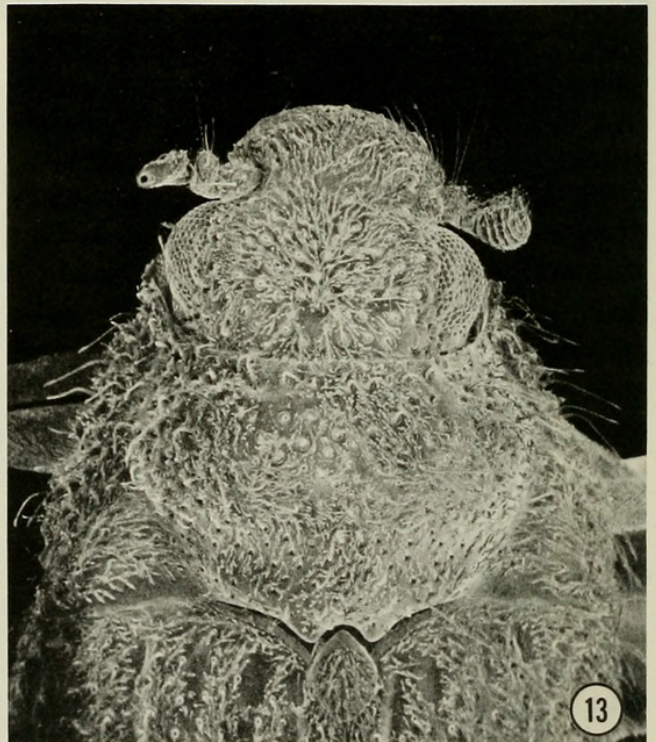
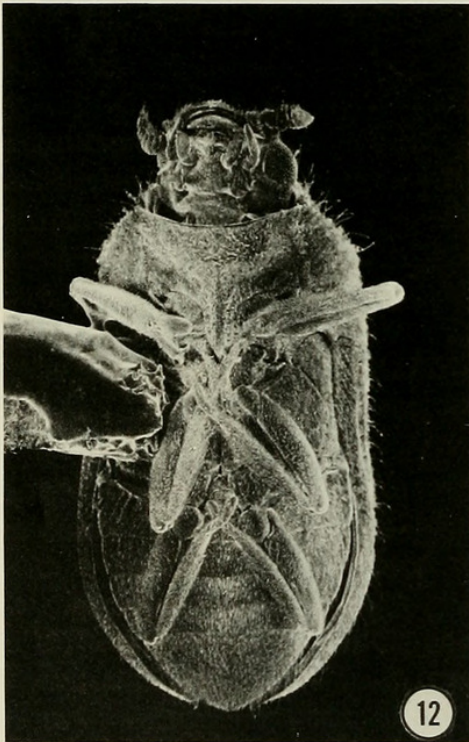
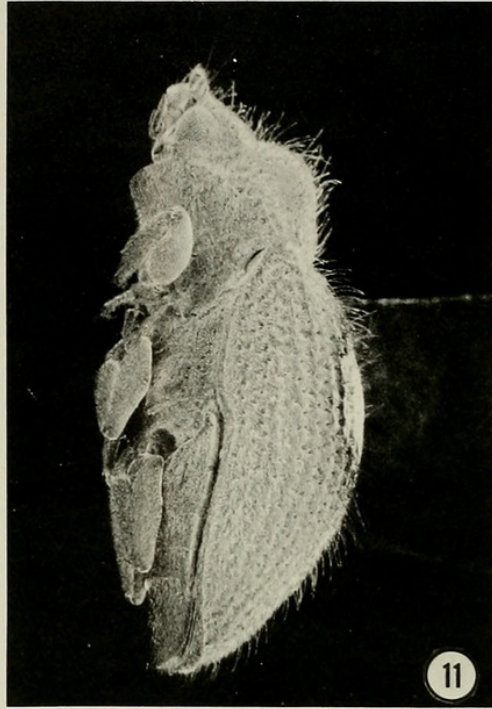
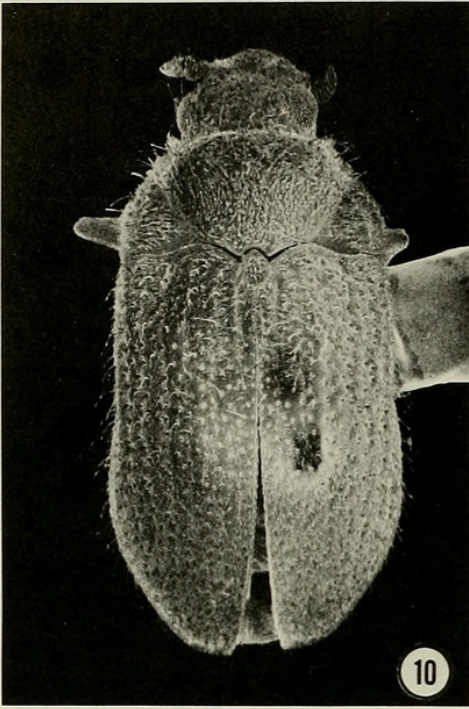
Description.—Holotype male: 2.60 mm long, 1.44 mm wide. Body form oblong,



Figs. 7-9. *Quadryops obtusetosus*: 7, Habitus, ventral view; 8, Prosternum; 9, Antenna and associated head and prosteral structures.

markedly convex (Figs. 10, 11). Color brown; dorsum slightly darker than venter and legs. Integument with light brown indumentum; dorsal surface also with suberect setae about 0.16 mm long, each seta enlarged subapically and with pointed apex (Fig. 19).

Head: 0.60 mm long, 0.70 mm wide, 0.50 mm wide between eyes. Eyes large,



Figs. 10–13. *Quadryops chrysosetosus*: 10, Habitus, dorsal view; 11, Habitus, lateral view; 12, Habitus, ventral view; 13, Head, pronotum and anterior region of elytra, dorsal view.

hemispherical, pubescent. Frons and base of clypeus transversely confluentlly concave; frons markedly punctate. Clypeus in dorsal view with anterior margin straight in middle $\frac{1}{3}$, arcuate laterally, middle $\frac{2}{3}$ straight in anterior view; lateral angles deflexed. Labrum small, concealed beneath clypeus in dorsal view; anterior margin

shallowly emarginate. Antennomeres 11 (Figs. 26, 27). Last labial palpomere flat, broad; width equal to $\frac{1}{2}$ length. Maxillary palpomeres 2 and 3 each $\frac{1}{3}$ length of palpomere 4 (Fig. 35).

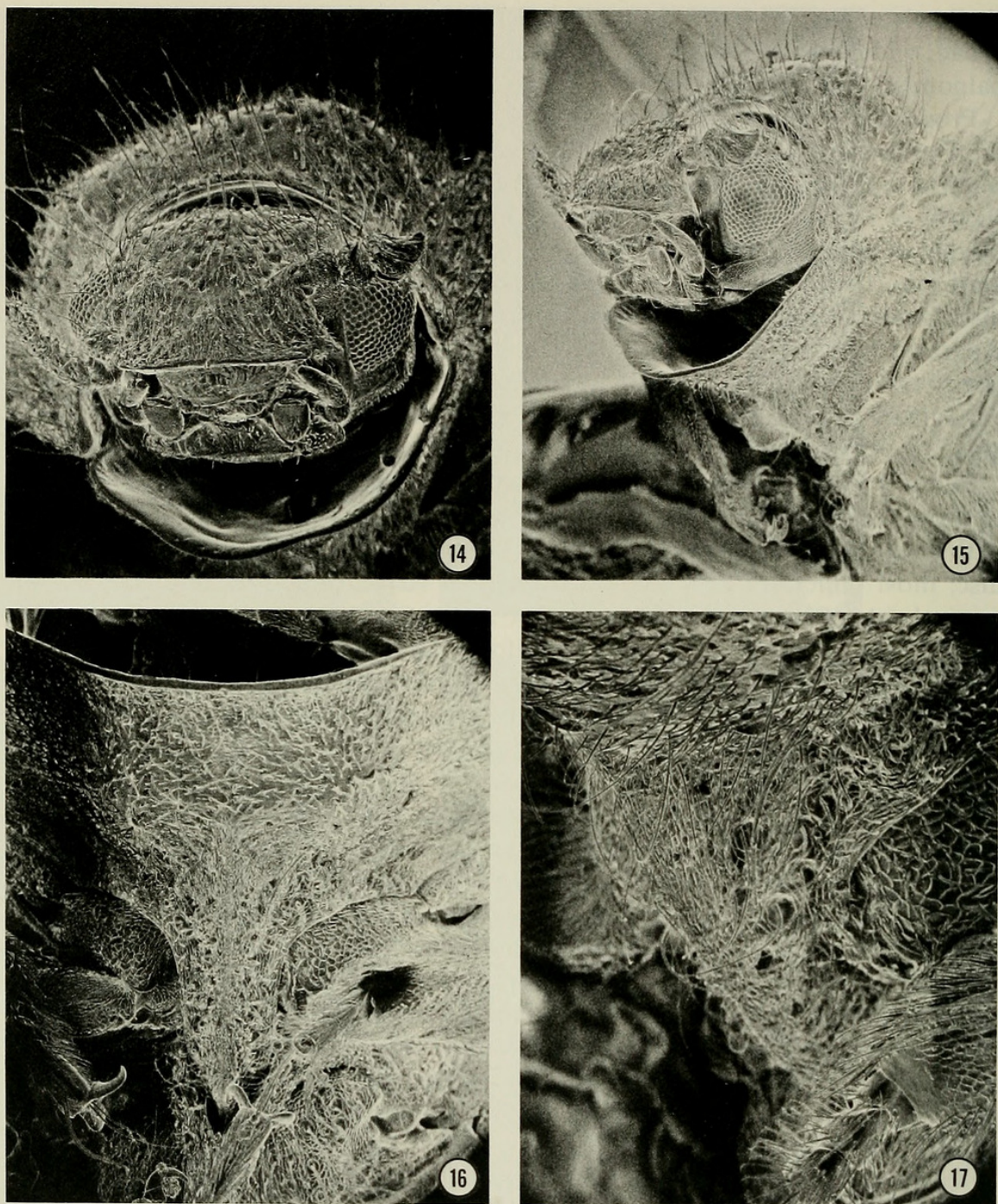
Pronotum: 0.60 mm long; width 1.32 mm basally, 0.80 mm apically. Apical $\frac{2}{3}$ of pronotal disc markedly inflated, very slightly depressed longitudinally on midline to form lobe on each side. Posterior area lateral to elevated disc triangular, slightly concave; with shiny integument, except alutaceous lateral border. Anterior margin of pronotum with short shelf in front of discal lobes; lateral margin crenulate. Short pubescence more developed on reliefs than in area at margin of raised disc. Moderately markedly punctate, especially on inflated disc where punctures separated by $1-2\times$ their width. Integument shiny on disc, dull between disc and lateral margin. Posterior margin trisinuate, contiguous with elytral base, angularly emarginate to receive scutellum; small depression in front of prescutellar emargination. Scutellum more markedly angulate anteriorly than posteriorly.

Elytra: 1.92 mm long, 1.44 mm wide; parallel sided; markedly declivous laterally to form vertical sides; disc transversely and longitudinally convex. Each elytron with irregular, coarse, dense, setiferous punctures larger than those on pronotal disc; most punctures in 9 shallow, indistinct striae; punctures of striae 7-9 on vertical side of elytron very dense, some separated by narrow ridges. Basal tenth of interval 5 (humeral) irregularly cariniform. Lateral margin, in side view, markedly sinuate (Fig. 11). Stria 9 (marginal) well developed. Stria 1 more markedly developed in basal third than on remainder of elytron. Elytral apices subacute.

Prosternum: 0.66 mm long; with moderately dense indumentum and sparse, erect, longer hairs (these hairs not expanded subapically as those on dorsum). Prosternal process 0.26 mm long, 0.14 mm wide at base; carinate, carina extended anteriorly onto disc; slightly convex in lateral view; apex inserted into deep mesosternal fovea. Mesosternum with sides of median fovea raised slightly. Metasternum with median longitudinal depression; intercoxal process width less than length, raised slightly above plane of disc, median longitudinal depression well developed; metepisternum without basomedial carina; integument densely indumentose, also with large punctures, each puncture with a large suberect seta; large punctures in a marginal row at base of metasternum, absent from small sublateral area in front of marginal row; remainder of metasternum randomly punctate, punctures separated by about $2-3\times$ their diameter; basal margin lobate on each side of midline.

Abdomen: Midline length ratios of sterna: $2/1.2/1/1/3$. Intercoxal process length equal to width at base, length about equal to length of remainder of sternum; narrowest separation of metacoxae slightly greater than that of mesocoxae. Sternum 5 with apical half raised on midline to form low ridge. Integument indumentose as metasternum. Macropunctures on intercoxal process as large as and as dense as those on metasternum; remainder of macropunctures on sterna denser and smaller. Each macropuncture with suberect seta.

Legs: Densely indumentose. Tarsi densely pubescent beneath; each slightly more than $\frac{1}{3}$ length of respective tibia. Protibia with apical half slightly flattened lateromedially, widest near apical third. Metacoxae coarsely punctate similarly to metasternum; metatrochanter globose, size slightly smaller than median third of coxa; metafemur with upper surface of distal end angulate.

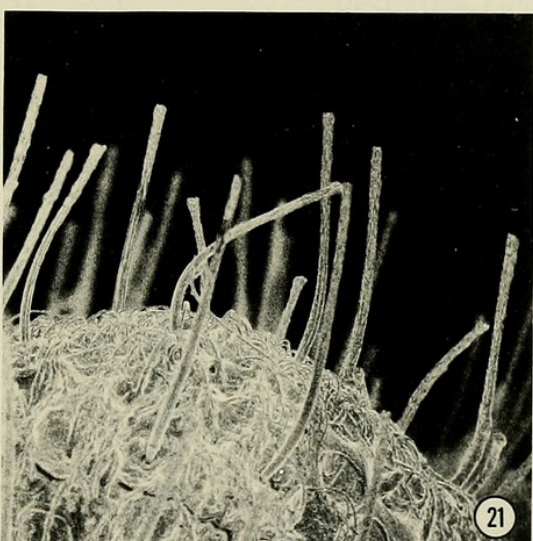
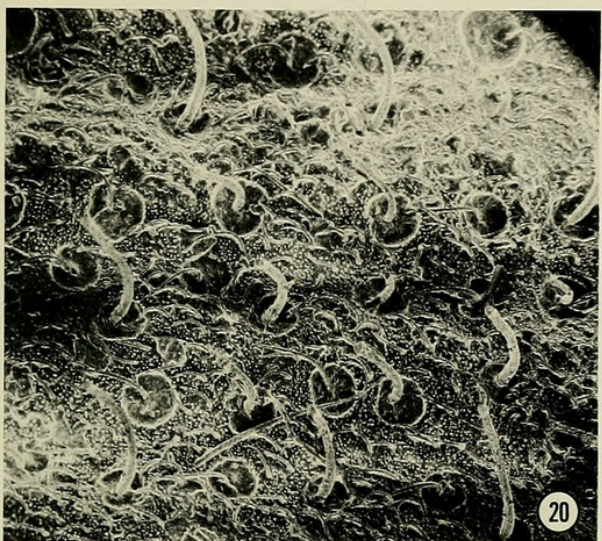
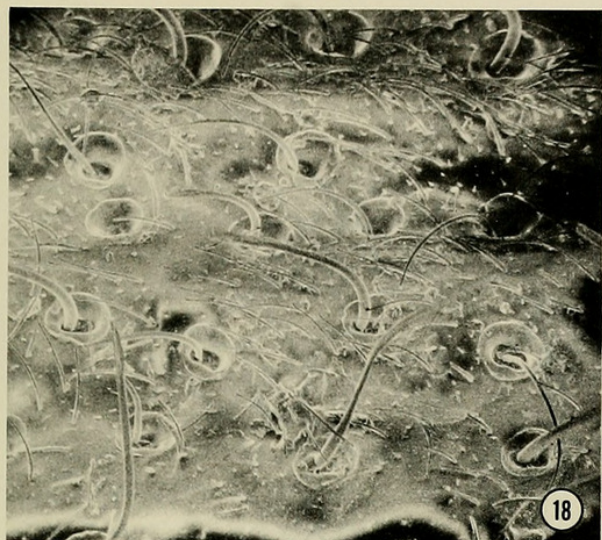


Figs. 14–17. *Quadryops chrysozetosus*: 14, Head and prothorax, anterior view; 15, Head and prothorax, oblique view; 16, Prosternum, ventral view; 17, Prosternum, oblique view.

Genitalia: Aedeagus as illustrated (Fig. 22). Female unknown.

Distribution.—Presently known only from the type-locality; Canal Zone, Panama.

Etymology.—*chrysozetosus*, from Chrysopidae and *setosus*. The prominent sub-erect setae of the body are expanded subapically, reminiscent of chrysopid eggs mounted on narrow stalks.



Figs. 18–21. 18, *Quadryops chrysosetosus*, disc of elytron; 19, *Q. chrysosetosus*, apex of pronotal seta (800 \times); 20, *Q. obtusetosus*, disc of elytron; 21, *Q. obtusetosus*, pronotal setae.

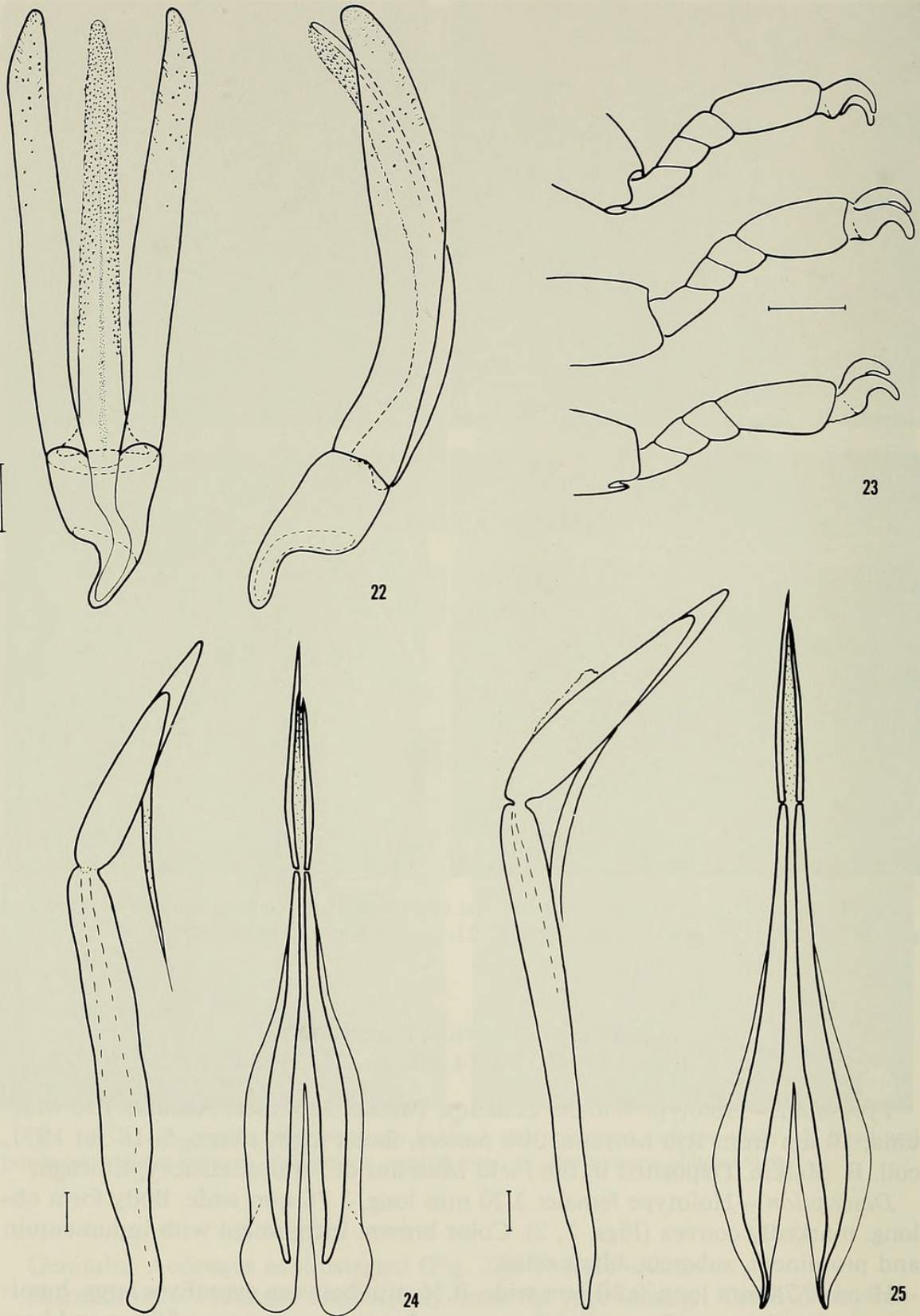
Quadryops obtusetosus, new species

Figs. 1–9, 20, 21, 24, 27, 29, 31, 33, 34

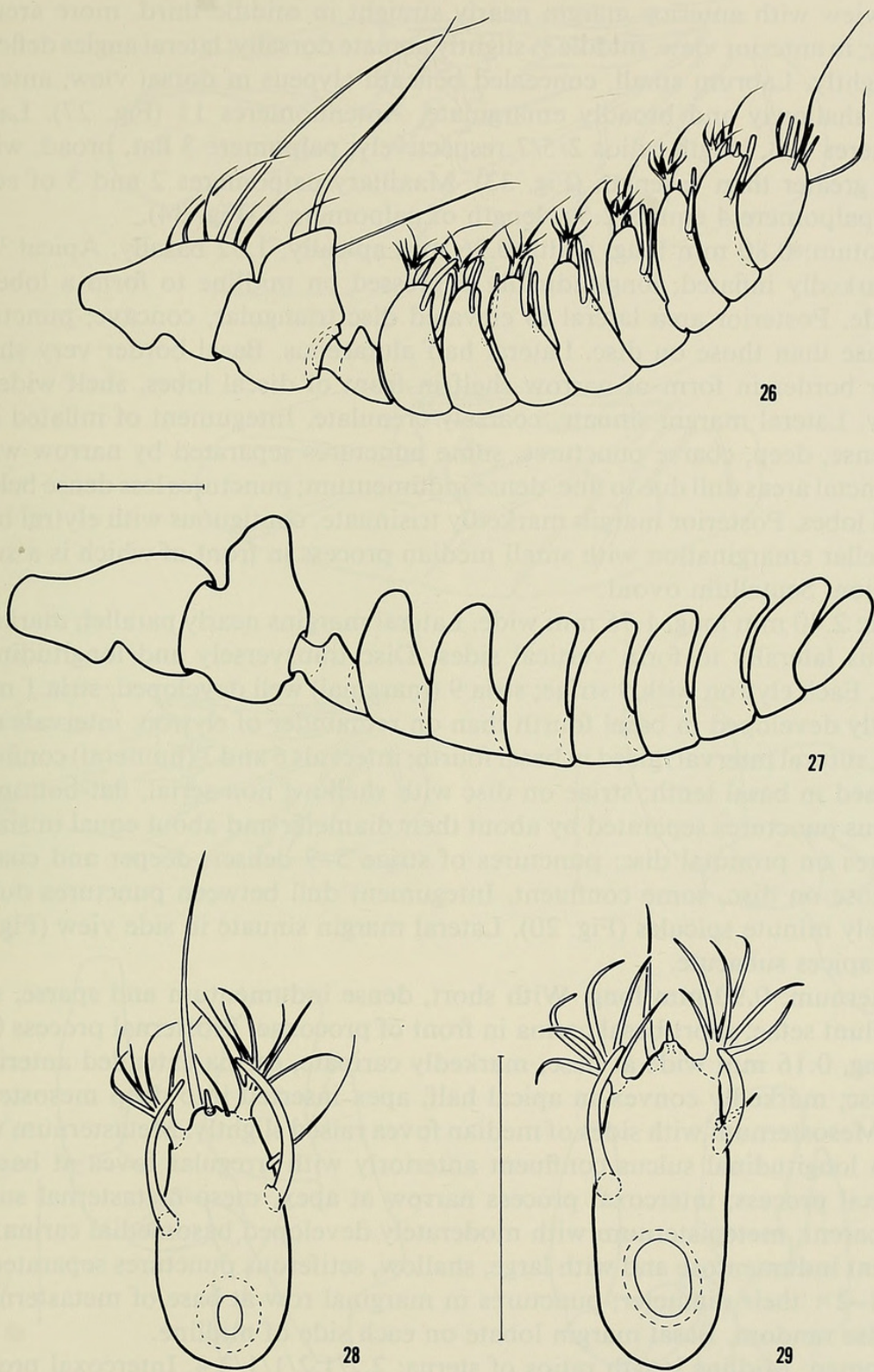
Type-data.—Holotype female: Ecuador, Pastaza Province, Ashuara Rio Macuma, 10 km from Rio Morona, 300 meters, forest night sweep, 7–16 Jul 1971, coll. B. Malkin. Deposited in the Field Museum of Natural History, Chicago.

Description.—Holotype female: 3.20 mm long, 1.76 mm wide. Body form oblong, markedly convex (Figs. 1, 2). Color brown. Integument with indumentum and prominent, suberect, blunt setae.

Head: 0.74 mm long, 0.80 mm wide, 0.56 mm between eyes. Eyes large, hemispherical, pubescent. Frons slightly concave between eyes; apex of frons and base of clypeus confluent concave between antennal acetabulae; frontoclypeal suture distinct in middle of concavity; frons with punctures coarse, dense, deep; interstices with narrow walls, punctures absent from small median area. Clypeus in



Figs. 22-25. 22, *Quadryops chrysosetosus*, aedeagus, dorsal and lateral views; 23, *Q. quasimodoi*, pro- (top), meso- and metatarsi (microslide preparation; pubescence omitted); 24, *Q. obtusetosus*, ovipositor, lateral and dorsal views; 25, *Q. quasimodoi*, ovipositor, lateral and dorsal views. (Scale lines equal 0.1 mm.)



Figs. 26–29. 26, *Quadryops chrysosetosus*, antenna (some simple setae omitted); 27, *Q. obtusetosus*, antenna (all setae omitted); 28, *Q. chrysosetosus*, antennomere 7; 29, *Q. obtusetosus*, antennomere 7. (Scale lines equal 0.1 mm.)

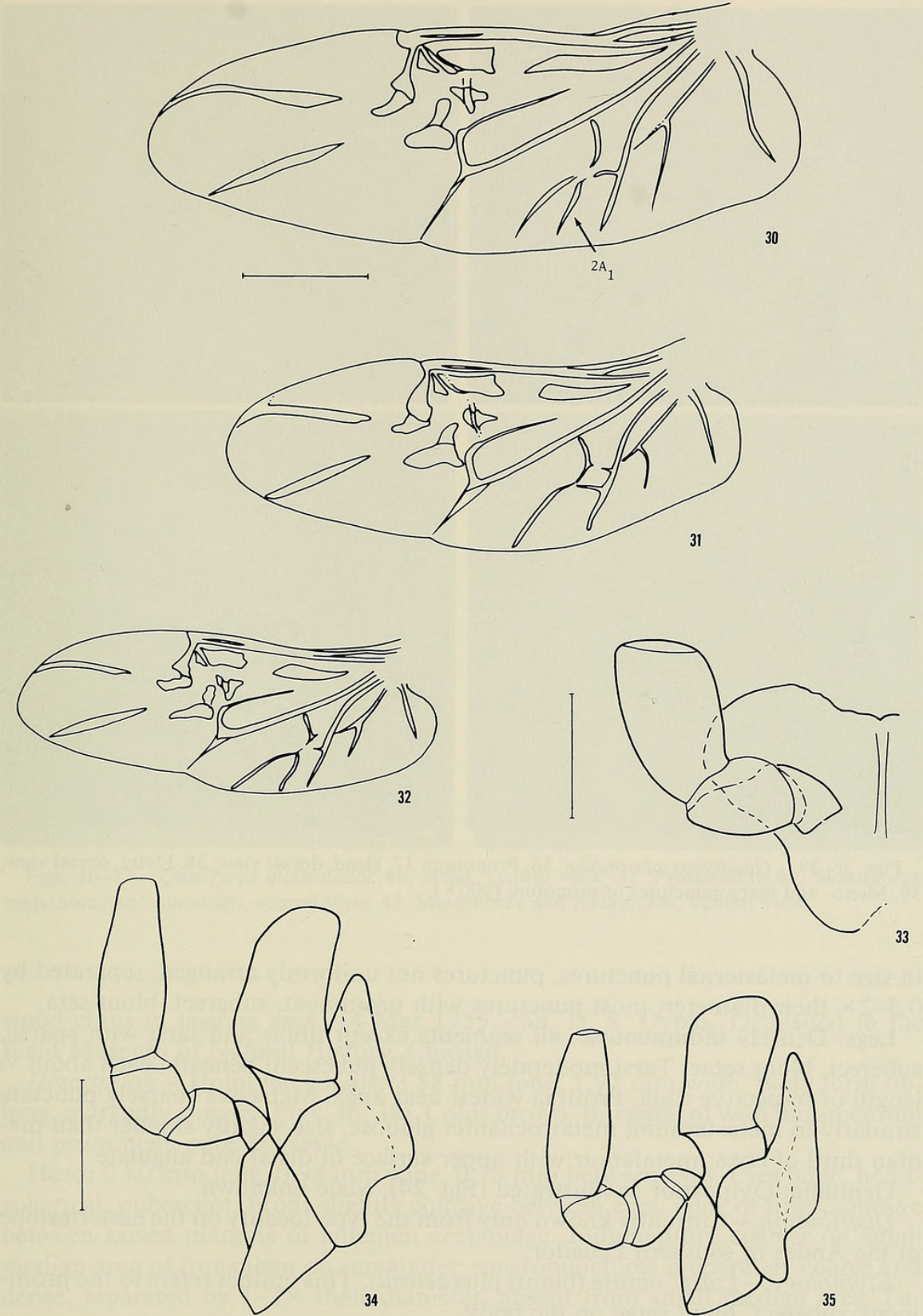
dorsal view with anterior margin nearly straight in middle third, more arcuate laterally; in anterior view, middle $\frac{2}{3}$ slightly arcuate dorsally; lateral angles deflexed very slightly. Labrum small, concealed beneath clypeus in dorsal view; anterior margin shallowly and broadly emarginate. Antennomeres 11 (Fig. 27). Labial palpomeres 1–3, length ratios 2/5/7 respectively; palpomere 3 flat, broad, width slightly greater than $\frac{1}{2}$ length (Fig. 33). Maxillary palpomeres 2 and 3 of equal length; palpomere 4 equals $2.5 \times$ length of palpomere 3 (Fig. 34).

Pronotum: 0.80 mm long; width 0.96 mm apically, 1.52 basally. Apical $\frac{2}{3}$ of disc markedly inflated, longitudinally depressed on midline to form a lobe on each side. Posterior area lateral to elevated disc triangular, concave; punctures less dense than those on disc. Lateral half alutaceous. Basal border very shiny; anterior border in form of narrow shelf in front of discal lobes, shelf widened laterally. Lateral margin sinuate, coarsely crenulate. Integument of inflated disc with dense, deep, coarse punctures; some punctures separated by narrow walls; interpunctal areas dull due to fine, dense indumentum; punctures less dense behind inflated lobes. Posterior margin markedly trisinate, contiguous with elytral base; prescutellar emargination with small median process in front of which is a small depression. Scutellum ovoid.

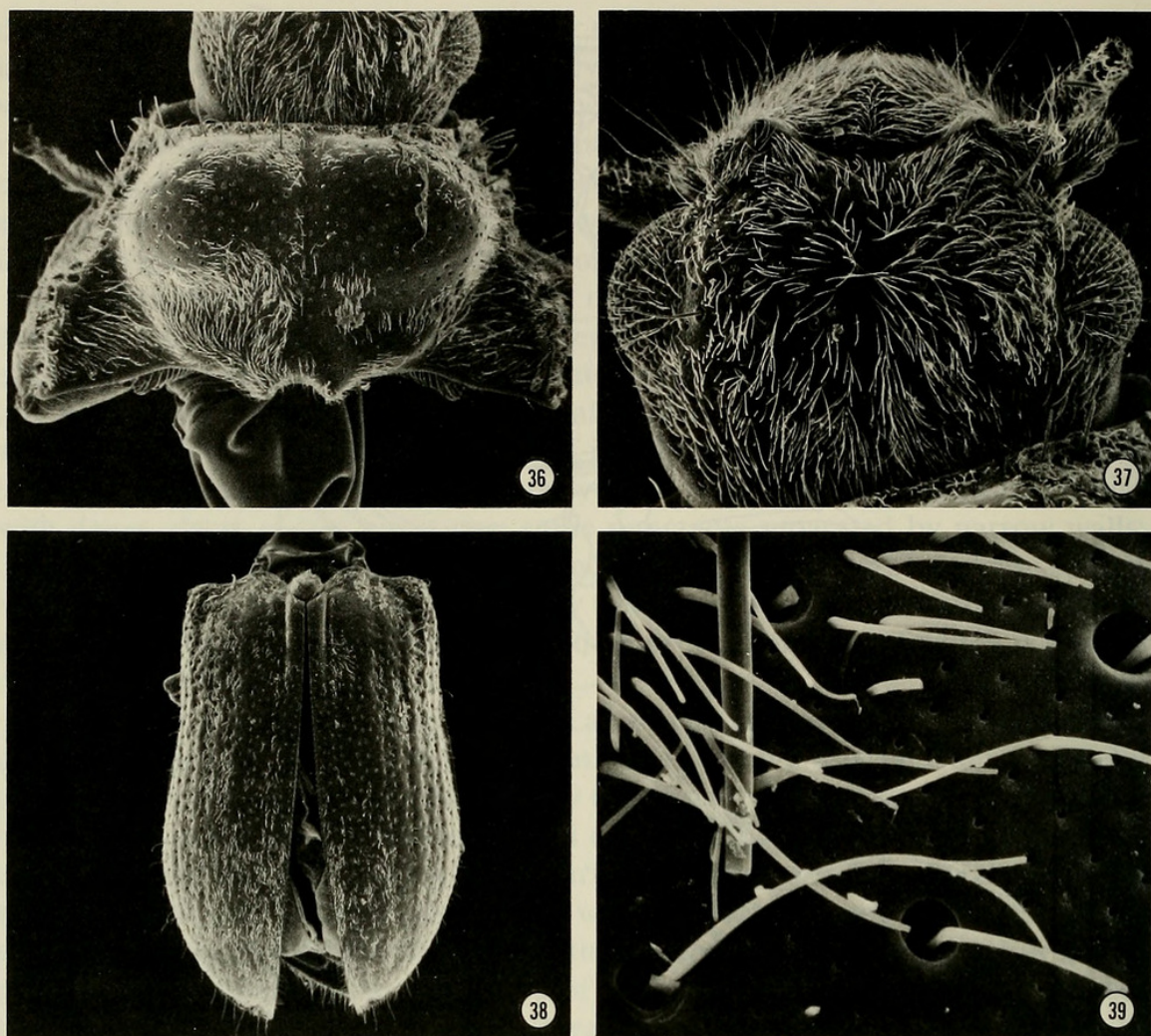
Elytra: 2.40 mm long, 1.76 mm wide. Lateral margins nearly parallel; markedly declivous laterally to form vertical sides. Disc transversely and longitudinally convex. Each elytron with 9 striae; stria 9 (marginal) well developed; stria 1 more markedly developed in basal fourth than on remainder of elytron; intervals subcostate; sutural interval raised in basal fourth; intervals 6 and 7 (humeral) confluent and raised in basal tenth; striae on disc with shallow, non-serial, flat-bottomed, setiferous punctures separated by about their diameter and about equal in size to punctures on pronotal disc; punctures of striae 5–9 denser, deeper and coarser than those on disc, some confluent. Integument dull between punctures due to extremely minute spicules (Fig. 20). Lateral margin sinuate in side view (Fig. 2). Elytral apices subacute.

Prosternum: 0.90 mm long. With short, dense indumentum and sparse, suberect, blunt setae; short basal carina in front of procoxae. Prosternal process 0.40 mm long, 0.16 mm wide at base; markedly carinate, carina extended anteriorly onto disc; markedly convex in apical half; apex inserted into deep mesosternal fovea. Mesosternum with sides of median fovea raised slightly. Metasternum with median longitudinal sulcus confluent anteriorly with irregular fovea at base of intercoxal process; intercoxal process narrow at apex, meso-metasternal suture not apparent; metepisternum with moderately developed basomedial carina. Integument indumentose and with large, shallow, setiferous punctures separated by about $1-2 \times$ their diameter; punctures in marginal row at base of metasternum, otherwise random. Basal margin lobate on each side of midline.

Abdomen: Midline length ratios of sterna: 2.2/1.2/1/1/3.4. Intercoxal process length equal to basal width; length nearly $\frac{2}{3}$ total length of sternum; narrowest separation of metacoxae slightly greater than that of mesocoxae. Sternum 5 with apical third raised on midline, with narrow apicomедial emargination. Integument moderately sparsely indumentose except in macropunctures which are prominent and shallow; those macropunctures on sterna 1 and 2 twice size of metasternal punctures, punctures becoming smaller posteriorly; punctures on sternum 5 equal



Figs. 30–35. 30, *Quadryops quasimodoi*, wing; 31, *Q. obtusetosus*, wing; 32, *Q. chrysoetosus*, wing; 33, *Q. obtusetosus*, labial palpus; 34, *Q. obtusetosus*, maxilla (setae omitted); 35, *Q. chrysoetosus*, maxilla (setae omitted). (Scale lines equal 0.1 mm for mouthparts and 1.0 mm for wings.)



Figs. 36–39. *Quadryops quasimodoi*: 36, Pronotum; 37, Head, dorsal view; 38, Elytra, dorsal view; 39, Micro- and macropunctures of pronotum (900 \times).

in size to metasternal punctures, punctures not uniformly arranged, separated by 0.5–2 \times their diameter; most punctures with prominent, suberect, blunt seta.

Legs: Densely indumentose; all segments except tibiae and tarsi with sparse, suberect, blunt setae. Tarsi moderately densely pubescent beneath; each about $\frac{1}{3}$ length of respective tibia. Protibia widest near apex. Metacoxa coarsely punctate similarly to metasternum; metatrochanter globose, size slightly smaller than median third of coxa; metafemur with upper surface of distal end angulate.

Genitalia: Ovipositor as illustrated (Fig. 24). Male unknown.

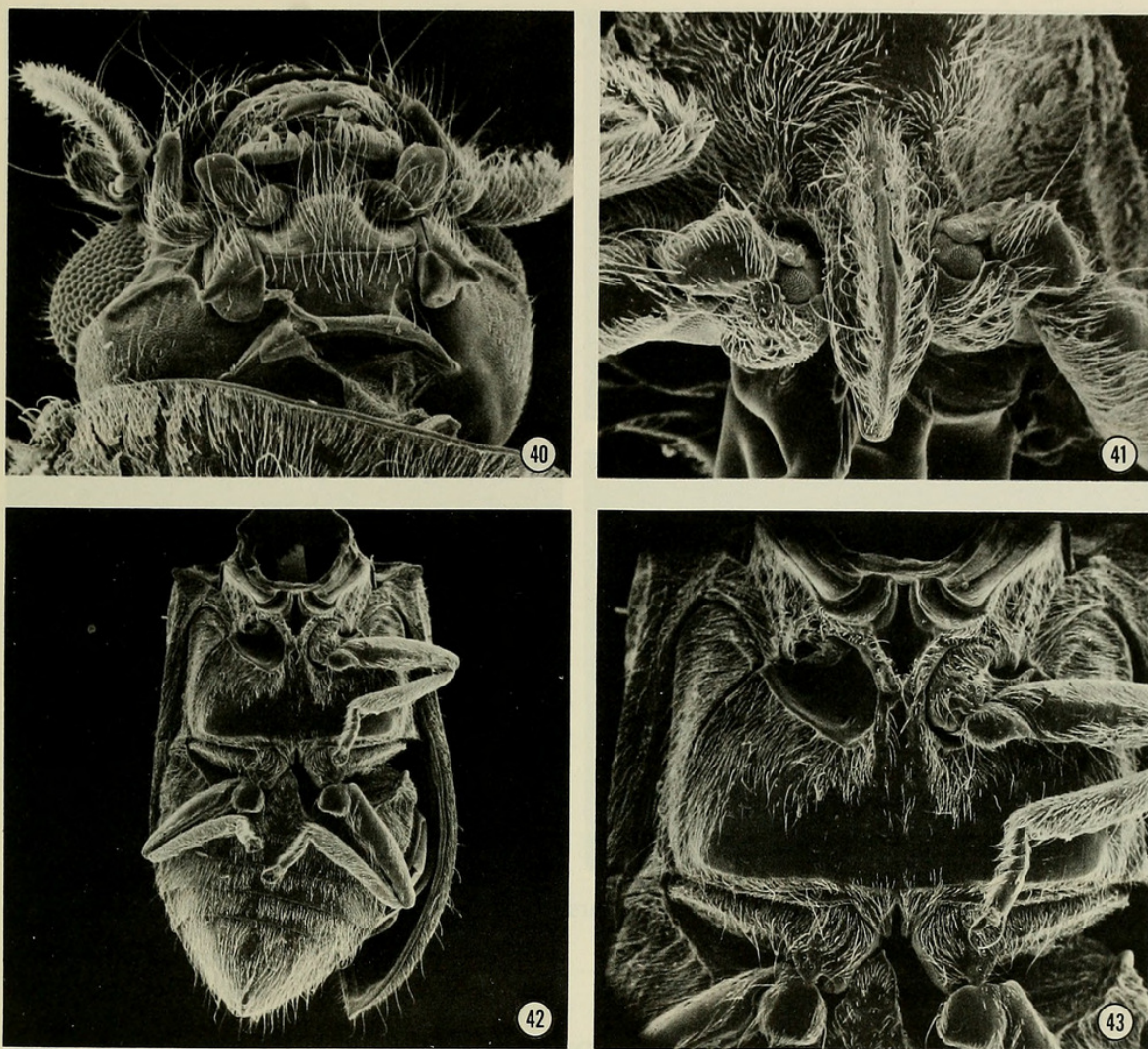
Distribution.—Currently known only from the type-locality on the eastern slope of the Andes in southern Ecuador.

Etymology.—Latin, *obtuse* (blunt) plus *setosus*. This epithet refers to the prominent, suberect, blunt setae on the body.

Quadryops quasimodoi, new species

Figs. 23, 25, 30, 36–47

Type-data.—Holotype female: Panama, Chiriqui Province, “Barca” area, Finca Lerida nr. Boquete, 5650 feet; berlese (B-487), concentrated forest floor litter and

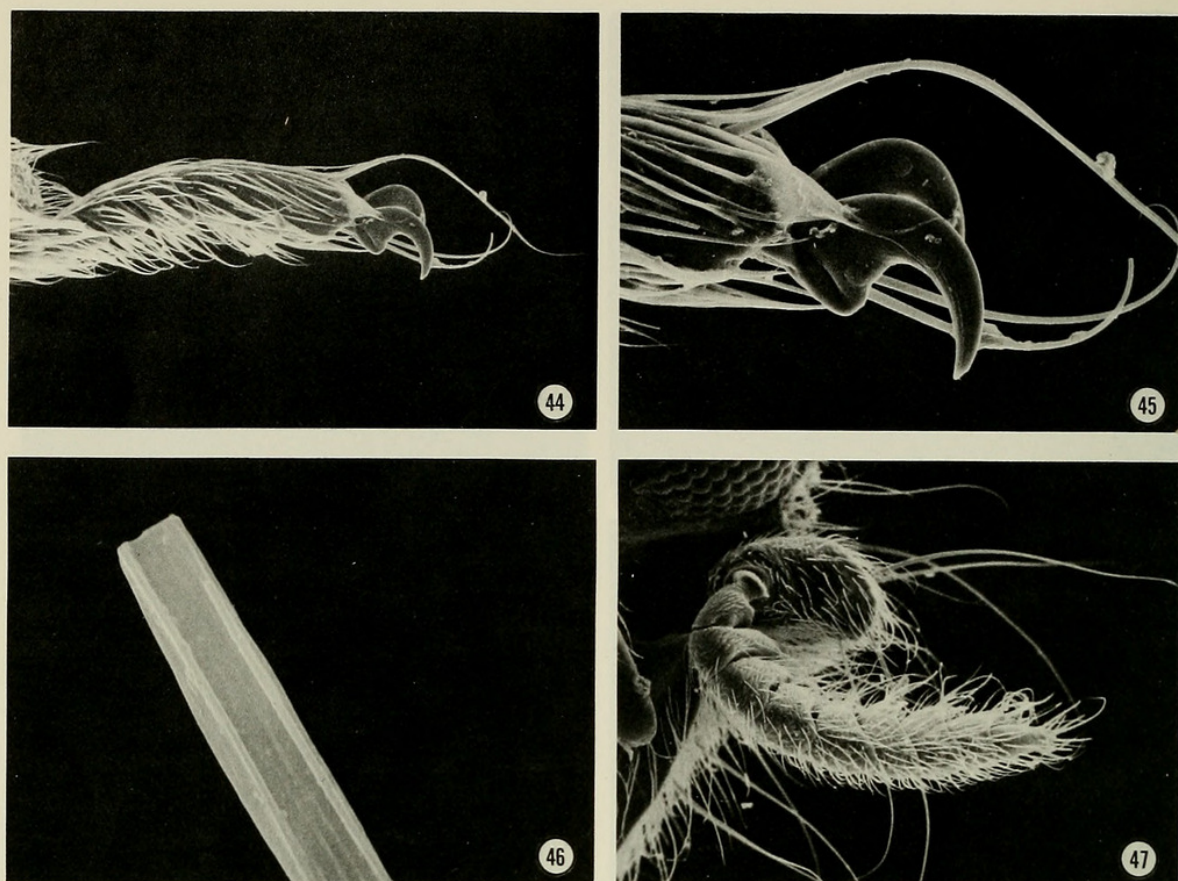


Figs. 40–43. *Quadryops quasimodoi*: 40, Head, ventral view; 41, Prosternum; 42, Mesothorax, metathorax and abdomen, ventral view; 43, Mesothorax and metathorax, ventral view.

wood chips in logging area, 14 Mar 1959, coll. H. S. Dybas. Deposited in the Field Museum of Natural History, Chicago.

Description.—Holotype female: 3.88 mm long, 1.92 mm wide. Body form oblong, markedly convex (Figs. 36, 38). Color brown. Integument with indumentum and prominent, suberect setae.

Head: 0.80 mm long, 0.98 mm wide, 0.70 mm between eyes. Eyes large, hemispherical, pubescent. Frons slightly concave between eyes; apex of frons concave between raised margins of antennal acetabulae. Indumentum sparser on small median area of frons than on remainder; macropunctures moderately coarse and dense, separated by 1–2 \times their diameter, absent from small median area. Labroclypeal suture subsulcate due to concavity of frontal apex and raised base of clypeus. Clypeus in dorsal view with anterior margin arcuate laterally, less so in middle $\frac{1}{3}$; in anterior view, very shallowly emarginate in middle $\frac{1}{3}$; lateral angles reflexed. Labrum directed ventrad, concealed beneath clypeus in dorsal view, broadly emarginate apically. Antennomeres 11 (Fig. 47). Labial palpomeres 1–3 with length ratios about 2/5/7 respectively; palpomere 3 flat, broad, width slightly



Figs. 44–47. *Quadryops quasimodoi*: 44, Protarsus; 45, Protarsal claws (450 \times); 46, Apex of pronotal seta (2300 \times); 47, Antenna (200 \times).

greater than length (Fig. 40). Maxillary palpomeres 2 and 3 of equal length; each $\frac{1}{3}$ length of palpomere 4 (Fig. 40).

Pronotum: 0.80 mm long; width 1.08 mm apically, 1.64 mm basally. Apical $\frac{3}{4}$ of disc very markedly inflated, longitudinally depressed on midline to form lobe on each side. Posterior area lateral to elevated disc triangular, slightly concave, punctures less dense than those on disc; lateral border alutaceous, basal border very shiny. Anterior border in form of narrow shelf in front of inflated lobes, shelf widened laterally. Lateral margin extended slightly obliquely to midline from apical angle to midlength then markedly angulate to form wide base, margin coarsely crenulate (Fig. 36). Integument of inflated disc with sparse, round, small punctures separated by 2–5 \times their diameter; interpunctal areas with very fine, dense micropunctures of indumentum (abraded on holotype). Posterior margin markedly trisinate, contiguous with elytral base; prescutellar emargination arcuate. Integument in front of emargination raised in form of inverted V. Elytral base diverging anterior of midlength of scutellum. Scutellum spindle shaped; disc raised slightly.

Elytra (Fig. 38): 3.00 mm long, 1.92 mm wide. Lateral margins almost parallel; markedly declivous laterally to form vertical sides. Disc transversely and longitudinally convex. Each elytron with 9 irregular striae. Stria 1 (sutural) deeply impressed in basal third; basal third of sutural interval markedly raised. Stria 2 nearly obsolete. Striae with irregular, non-serial punctures; punctures of striae 1 and 2 slightly larger than those on pronotal disc; punctures becoming larger and

Table 1.—Character comparison of *Quadryops* species.

Character	<i>chrysoetosus</i> (male)	<i>quasimodoi</i> (female)	<i>obtusetosus</i> (female)
Base of clypeus	depressed	not depressed	depressed
Lateral angles of clypeus	deflexed	reflexed	deflexed slightly
Pronotal punctation	moderately coarse and dense	fine and sparse	very coarse and dense
Pronotal mid-longitudinal impression	faintly developed	well developed	well developed
Fraction of pronotum lobate	$\frac{2}{3}$	$\frac{3}{4}$	$\frac{2}{3}$
Median process of pronotal prescutellar emargination	absent	absent	present
Lateral margin of pronotum	not angulate	markedly angulate	moderately angulate
Elytral striae	moderately developed	moderately developed	well developed, intervals subcostate
Elytral integument between punctures	smooth and shiny	smooth and shiny	asperate and dull
Suberect setae of dorsum	hastate	obtuse apically	obtuse and expanded apically
Median third of prosternal carina	straight	angulate	straight
Metasternal intercoxal process raised above plane of disc	distinctly	slightly	distinctly
Basomedial carina of metepisternum	absent	well developed	moderately developed
Ratios of lengths of abdominal sterna	2/1.2/1/1/3	2.3/1.2/1/1/3.3	2.2/1.2/1/1/3.4
Vein 2A ₁ of wing	present	present	absent
Size (mm)	2.60 × 1.44	3.88 × 1.92	3.20 × 1.76

deeper laterally; those of striae 5–8 very deep and subconfluent. Intervals 5–8 irregularly subcostate; intervals 6–8 fused in basal fifth to form well-developed humeral ridge; medial margin of interval 6 in form of a low carina. Lateral margin sinuate in side view. Elytral apices subacute.

Prosternum (Fig. 41): 0.92 mm long; densely indumentose. Prosternal process 0.46 mm long, 0.20 mm wide at base; markedly carinate, width of carina at midlength subequal to width of shelf separating carina from procoxa; in lateral view, markedly angulate near midlength, this angle about equal to angle formed where prosternal carina joins prosternal disc; apex inserted into deep mesosternal fovea. Mesosternum with posterior margins of median fovea not raised. Metasternum with median longitudinal depression well developed on intercoxal process; intercoxal process width equal to its length; metepisternum with well-developed basomedial carina; disc almost devoid of macropunctures, especially

laterally; basomarginal groove with macropunctures; basal margin lobate on each side of midline.

Abdomen: Midline length ratios of sterna: 2.3/1.2/1/1/3.3. Intercoxal process length slightly greater than basal width, length nearly $\frac{2}{3}$ total length of sternum. Narrowest separation of metacoxae slightly less than that of mesocoxae. Sternum 5 with apical $\frac{1}{4}$ raised on midline; with narrow apicomedial emargination. Intercoxal process rugulose, contrasting with smoother discal areas of remaining sterna. Macropunctures of discal areas of sterna 2–4 sparse and small; macropunctures denser on sternum 5.

Legs: Densely indumentose. Tarsi moderately densely pubescent beneath (Fig. 44); each slightly more than $\frac{1}{3}$ length of respective tibia. Metacoxae coarsely punctate; metatrochanter globose, size slightly smaller than median $\frac{1}{3}$ of coxa; metafemur with upper surface of distal end angulate.

Genitalia: Ovipositor as illustrated (Fig. 25). Male unknown.

Distribution.—Currently known only from the type-locality in Chiriqui Province, Panama.

Etymology.—The hunchbacked appearance of this species calls to mind the character in Victor Hugo's novel.

Notes.—The holotype is badly abraded and several body parts are disarticulated. Disarticulated parts, including tarsi which were temporarily slide mounted for illustration, are in a microvial attached to the specimen's pin.

Key to the Species of *Quadryops*

1. Pronotal disc coarsely and densely punctate (Figs. 3, 4); suberect setae of body expanded and blunt apically (Figs. 6, 21); ovipositor as illustrated (Fig. 24); Ecuador *obtusetosus*, new species
- Pronotal disc not coarsely and densely punctate (Figs. 13, 36); suberect setae of body otherwise 2
2. Lateral margin of pronotum angulate near midlength (Fig. 36); median carina of prosternal process angulate near midlength (Fig. 41); suberect setae of body blunt at apex (Fig. 46); metasternal episternum with well-developed basomedial carina (Fig. 43); ovipositor as illustrated (Fig. 25); size 3.88×1.92 mm; Chiriqui Province, Panama *quasimodoi*, new species
- Lateral margin of pronotum not angulate (Fig. 13); median carina of prosternal process not angulate near midlength (Figs. 16, 17); suberect setae of body acute at apex, expanded subapically (Fig. 19); metasternal episternum without well-developed basomedial carina (Fig. 12); aedeagus as illustrated (Fig. 22); size 2.60×1.44 mm; Canal Zone, Panama *chrysosetosus*, new species

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