

THE MONOCHAMINI (Cerambycidae) OF THE ETHIOPIAN FAUNISTIC REGION. V. THE SUBTRIBE ACRIDOCEPHALIDI

By ELIZABETH S. DILLON AND LAWRENCE S. DILLON¹

The genus *Acridocephala* is so highly divergent from the other Monochamini of the Ethiopian Region that special treatment for it was felt to be obligatory. In the first place, the plan of construction of the body is unique, for the dorsal surface of the head and of the thorax as well as the elytra lie in a single plane, whereas in the remaining genera the elytral bases are elevated out of line with the pronotum and the vertex is declivous. Moreover, the front is strongly narrowed above and placed at a sharp angle to the vertex, and the antennal tubercles are erect, not at all divergent. Many other characters of a singular nature are present, for an account of which the subtribal description should be referred to, forcing the recognition of the combination of traits, at least for the present, as representing a subtribal level of distinction.

For a list of collections studied and their abbreviations, reference should be made to part I of this series.²

Acridocephalidi Dillon and Dillon, new subtribe

Head of normal length; front meeting vertex at an acute angle, retracted below; vertex scarcely declivous; eyes with lower lobe much shorter than gena, upper lobe and isthmus of equal width; antennal tubercles contiguous, not divergent apically; clypeus fused with front, not evident. Pronotum and elytra on the same plane, the former without discal tubercles, lateral tubercles granuliform; elytra without basal gibbosities. Legs moderately long, middle ones shortest, hind ones longest; femora distinctly tapering apically and metatibiae notched externally; tarsal claws movable, divergent or divaricate, usually the latter.

Acridocephala Chevrolat

Acridocephala Chevrolat. Lacordaire, Gen. Col. IX, 1869, p. 342, 349

Arch. Ent. II, 1858, p. 186; Class. Ceramb. 1860, p. 110, 112; Syst.

Ceramb. 1864, p. 383. Breuning, Nov. Ent. suppl. III (2) 1944, p. 384.

Acridocephala Chevrolat. Lacordaire, Gen. Col. IX, 1869, p. 342, 349.

Moderate-sized, elongate-ovate, subcylindrical, black. Head finely punctuate, narrow of normal length, not declivous above; front convex, strongly retracted below, at least slightly higher than wide, sides subparallel below eyes, strongly narrowed between; eyes with lower lobe obliquely transverse, distinctly shorter than gena, upper lobes and isthmus of equal width, lobes separated by less than twice their width; antennal tubercles prominent, contiguous, not divergent apically. Pronotum

¹Department of Biology, Agricultural and Mechanical College of Texas, College Station, Texas.

²Scientific Publications of The Reading Public Museum and Art Gallery, no. 9, 1959.

slightly wider across base than long, sides irregular tapering apically; lateral tubercles scarcely evident, usually granuliform; apical and basal transverse sulci usually distinct, more or less straight; disk medially transversely rugose, usually devoid of tubercles, occasionally with one or two small ones just before basal sulcus. Elytra without basal gibbosity; disk rather densely punctate, punctures sparser as a rule toward suture and, at least near humerus, provided with very small granules; each disk often with two or three very indistinct costae; apices squarely truncate or emarginate, angles more or less prominent or dentate; humeri simple. Prosternal process strongly arcuate from front to back, nearly attaining height of procoxae, anteriorly with a distinct prominence; mesosternal process broadly tuberculate, on same plane as mesocoxae. Legs moderately long, middle ones shortest, hind ones longest; femora robust, distinctly tapering apically and basally, metafemora attaining apex of third sternite. Antennae more than twice body length in male, about one-third longer in female, densely fimbriate beneath on first four segments, thence sparsely so at least on next two; scape robust, either gradually clavate or sub-cylindrical, extending to apical sulcus of pronotum, cicatrix broadly open mesially, extending less than halfway around apical margin, broad, nearly semicircular; third segment with sides parallel or narrowed from base to apex, three-fifths to three-fourths again as long as first; fourth distinctly shorter than third; rest gradually decreasing, or sometimes subequal in male; eleventh strongly elongate in male, feebly so in female.

Genotype: *Acridocephala bistriata* Chevrolat, by monotypy.

Remarks: Although this genus is highly discordant among the other African Monochamines, the authors feel that rather than adding to the confusion that exists in the division of Lamiinae into its tribes, it is better to let it stand here until a study of Palaearctic and Indo-Australian components of the tribe has been completed. From all the Ethiopian genera; it is distinct in having the front placed at an acute angle with the vertex, and strongly narrowed between the eyes; the antennal tubercles are contiguous throughout their length, not at all divergent; the mouthparts are retracted and are contiguous with the prothorax; and the prosternal process is armed anteriorly. Moreover, the entire upper surface is on a single plane.

KEY TO SPECIES

1. Elytra with a continuous white vitta from base to apex, not broken into separate maculae 2
 Elytra either with pubescence forming maculae or with vittae composed of separate maculae 3
2. Elytra white vitta not sharply defined, of uniform pubescence throughout *nubilosa*
 Elytra white vitta sharply defined, composed of dense, white, coalescent maculae *nicoletii*
3. Body beneath laterally with a continuous white vitta extending from gena to apex of abdomen *pulchra*
 Body beneath with lateral vitta broken into maculae on abdomen 4
4. Antennae with segments beginning with third distinctly white annulate basally 5
 Antennae with at most the third or fourth segment annulate basally 6

5. Elytra minutely irrorate with white and with a few, small, white maculae interspersed; vertex with a single broad whitish vitta each side **alboannulata**
 Elytra with small, rounded, white maculae, those before and behind middle more or less coalesced to form an irregular fascia, between which fasciae the area is almost devoid of any maculation; vertex with two vittae each side **bifasciata**
6. Elytra nearly immaculate broadly along suture and side margins **seriata**
 Elytra entirely and uniformly irrorate and maculate **bistriata**

Acridocephala nubilosa Breuning

Acridocephala nubilosa Breuning, Nov. Ent. VIII, 1938, p. 53; Nov. Ent. suppl. III (2) 1944, p. 386.

Female. Black. Head above with two narrow ashy vittae each side, the inner ones converging anteriorly, the outer ones behind isthmus of eye; front with four vittae, the middle ones ashy above, white on lower half and slightly widened there, that lateral ones densely white pubescent, attenuate below; genae broadly, densely, white pubescent. Pronotum with a broad ashy vitta each side of disk, leaving a broad glabrous area medially, the lateral margin of the vittae indistinct. Elytra finely ashy pubescent, the pubescence denser on disk to form a poorly defined vitta. Body beneath with a dense white vitta laterally, continuing that on gena without interruption to apex of abdomen, somewhat less densely pubescent on sides of sterna. Legs very sparsely, finely ashy pubescent; tibiae apically with a short, blackish line. Antennae rather densely clothed with reddish brown pubescence, except scape which is finely ashy pubescent.

Head above with a very fine, shallowly impressed sulcus medially, vertex smooth except for a small patch of fine punctures behind eye and a few coarse ones medially; front one-fifth higher than wide, strongly narrowed between eyes, parallel-sided below, median sulcus fine, with a few coarse, scattered punctures; eye with lower lobe obliquely transverse, three-fourths as tall as gena. Pronotum one-fourth again as wide at base as long, sides broadly arcuate to apex, not wider medially, apically strongly narrowed; lateral tubercles small, granular; apical and basal sulci fine and deep; disk finely, transversely rugose at middle, either side with a few rather fine punctures which become coarser laterally. Elytra with entire disk moderately finely, rather densely punctuate, a few granulate-punctures at extreme base and on humeri; each with two subobsolete costae behind middle; apices very feebly emarginate, outer angle with a small tooth. Prosternal process very narrow, prominence small, not bifurcate; mesosternal tubercle broad, not extending across entire angle, however. Antennae with eighth segment surpassing elytral apex, densely fimbriate beneath to fourth segment, more sparsely so then to the seventh; scape nearly parallel-sided, feebly surpassing pronotal apex, with a few small punctures over its entire surface; third segment straight, robust at base, tapering to apex, three-fifths longer than first; fourth one-third longer than first, tapering apically; fifth and following shorter.

Length 19 mm.; with 5.5 mm.

Type locality: Gabon

Distribution: Gabon

Gabon: 1; no further data [NRS-type]

Remarks: The solid ashy vitta of the pronotum and elytra, and the uninterrupted vitta of the underside will serve to distinguish this species.

***Acridocephala nicoletii* Thomson**

Acridocephala nicoletii Thomson. Lacordaire, Gen. Col. IX, 1869, p. 349.

Male. Black, shining, above with two white, feebly arcuate vittae, one each side extending from mesial surface of antennal tubercles to apex of elytron, tapering at each end, on elytra sometimes broken into small, more or less coalescent maculae, on vertex each somewhat subdivided into two narrow, vertical vittae; another vitta each side beginning at inner margin of eye continuing across sides of thorax to apex of abdomen, not interrupted but less dense and attenuate on fifth sternite. Pro- and meso-sternum medially, legs, and antennal scape, sparsely hoary pubescent; remainder of antennae densely covered with fuscous pubescence.

Head with front finely, irregularly punctate, strongly narrowed between eyes, nearly half again as high as wide; eye with lower lobe obliquely transverse, about one-third shorter than gena. Pronotum about one-sixth wider across base than long, sides arcuate, slightly widened medially, tapering at apex; lateral tubercles sub-obsolete, granuliform; apical transverse sulcus indistinct, broadly recurved medially, basal one deeply impressed, straight; disk medially irregularly, rather finely, transversely rugose, laterally with a few moderately coarse punctures. Elytra rather densely, deeply punctate, punctures towards suture a little sparser and towards apex slightly finer, those at base bearing indistinct granules, especially near humerus; apices broadly emarginate, angles sometimes subdentiform. Prosternal process with anterior prominence scarcely bifurcate; mesosternal tubercle broad, rounded, not prominent. Antennae defective, densely fimbriate beneath on first four segments, less densely so to seventh; scape nearly parallel-sided, feebly widening to apex which is slightly expanded laterally, attaining apical third of pronotum, covered with moderate-size punctures and suberect black setae; third segment three-fourths again as long as first, robust, scarcely tapering apically; rest wanting.

Female. As in male but more robust; antennae only about one-third again as long as body.

Length 17-21 mm.; width 5.5-6.3 mm.

Type locality: Gabon

Distribution: West and west central Africa.

Gabon: 2; no further data [MRS; BM] 1; Ogové River (Good) [CM].
Gold Coast: 3; Accra (Webber) [SM].

Remarks: This species is easily distinguished by the two broad vittae on body above which extend from antennal tubercles to the elytral apices. In addition, the vitta of the undersurface is likewise uninterrupted, or is only very indistinctly interrupted on the fifth sternite.

***Acridocephala pulchra* Dillon and Dillon, new species**

Male. Black; above as in *nicoletii*, with two white vittae, extending from antennal tubercles to apex of each elytra, tapering at each end but on elytral disk broken into small, more or less rounded maculae which are arranged subseriately. Front with a narrow, white vitta each side of middle, which is of sparser pubescence

except at lower portion, and with a vitta beginning at upper front margin of eye, rather narrow, but becoming very broad on gena, and continuing to apex of fifth abdominal sternite along side of body, attenuate on abdomen, uninterrupted. Legs and scape rather sparsely ashy pubescent; rest of antennae with rather fine fuscous pubescence.

Head above finely punctulate; front one-third again as tall as wide, rather finely, densely punctuate; eye with lower lobe obliquely transverse, about two-thirds as tall as gena. Pronotum one-third again as wide at base as long, sides arcuate, strongly narrowed apically; lateral tubercles feeble, granuliform; apical transverse sulcus narrow, rather feebly impressed, basal one broader, more distinct; disk medially finely, transversely rugose, laterally sparsely punctate. Elytra with moderate-sized, not too densely placed punctures, becoming denser and somewhat coarser laterally, near humeri with a few granulate-punctures; apices narrowly emarginate, angles shortly, robustly dentate. Prosternal process with anterior prominence very feebly bifurcate, anterior face produced forward; mesosternal tubercle broad, anteriorly projecting forwards. Antennae two and one-half to three times as long as body, densely fimbriate beneath on first four segments, slightly more sparsely so on fifth and sixth; scape attaining apical sulcus of pronotum, nearly parallel-sided, at apex feebly expanded; third segment two-thirds again as long as first, robust, slightly tapering from base; fourth a little shorter than third; rest subequal or feebly diminishing in length, except eleventh which is as long as the preceding three together.

Female. As in male but much more robust; antennae only one-fourth or one-third again as long as body, segments from third noticeably decreasing in length, the eleventh not so strongly elongate.

Length 16.5-20 mm.; width 5.2-6.5 mm.

Holotype: Male; Ogowe River, Gabon (Good) [CM]

Allotype: Female; same data as Holotype [CM]

Paratypes: 15; topotypic [CM]

Remarks: While this species is very close to *nicoletii*, here the vitta on the elytra is broken into numerous, seriatly arranged maculae.

***Acridocephala alboannulata* Breuning**

Acridocephala sp. Jordon, Nov. Zool. X, 1903, p. 153.

Acridocephala alboannulata Breuning, Festschr. E. Strand, I, 1936, p. 300; Nov. Ent. Suppl. III (2) 1944, p. 385, f. 284.

Male? Black. Head above with a single, broad, sparsely pubescent, white vitta each side of middle; front with four yellowish white vittae, the median ones sparsely pubescent, widening below, the one each side broad, densely pubescent, narrower below; gena broadly, densely white pubescent. Pronotum each side of middle with a broad, somewhat sparsely pubescent, white vitta, not sharply defined. Scutellum glabrous. Elytra densely covered with minute white maculae, and with scattered, feebly larger ones, those on disk largest but still quite fine. Body beneath medially nearly glabrous except on pro- and mesosternum; laterally with a broad, yellowish white vitta extending from sides of pronotum to tip of abdomen, slightly tapering posteriorly, narrowly interrupted only on bases of first and second sternites.

Legs very sparsely, finely, nearly ashy pubescent; tibiae with a narrow, black line apically on outer surface. Antennae with scape sparsely, finely, gray pubescent; rest fuscous pubescent, fourth and fifth segments (sixth and following wanting) densely white annulate on basal third.

Head above finely, rather sparsely punctulate, very narrowly, deeply sulcate medially; front about one-tenth higher than wide, very strongly narrowed between eyes, slightly so below, finely, densely punctate medially, median sulcus deep and fine; eye with lower lobe transverse, two-thirds as tall as gena. Pronotum at base one-seventh again as wide as long, apex distinctly narrower than base, indented at middle; lateral tubercles minute, granuliform; apical sulcus obsolete, basal one broad, shallow, straight; disk medially finely, transversely rugose, each side of middle finely, moderately densely punctate, at sides rugosely so. Elytra uniformly covered with moderately coarse, well separated punctures, on humeri somewhat denser and granulate, somewhat rugosely punctate behind humerus, at apex a little more densely placed; each disk with two subobsolete costae; apices slightly emarginate, the angles subdentate. Prosternum with anterior prominence bearing two tubercles, not on a pedestal; mesosternal process with a distinct rounded tubercle medially at angle. Antennae with fifth segment attaining apical fourth of elytra, beneath densely fimbriate; scape nearly parallel-sided, very feebly widening apically, rather densely covered with moderate-sized punctures and with short, black setae which are more or less recumbent, reaching only slightly behind pronotal apex; third segment straight, not quite twice as long as first; rest gradually shorter, sixth and following segments wanting.

Length 18.5 mm.; width 5.5 mm.

Type locality: Mayumbe, Belgian Congo

Distribution: Belgian Congo

Belgian Congo: 1; Mayumbe, July 1917 (R. Mayne) [NRS-type]

Remarks: The small mesosternal tubercle, the poorly defined white pronotal vittae, the prominent white annulation of the antennae, and the lateral vitta of the body beneath interrupted only on first two abdominal sternites, combine to distinguish this species.

***Acridocephala bifasciata* Dillon and Dillon, new species**

Female. Black. Head above with two fine, white vittae, the inner ones converging anteriorly; front with a narrow, yellowish white vitta each side of middle, of sparser pubescence than other markings, slightly wider below; each side in front of eye with a dense yellowish white vitta which broadens as it traverses the gena. Pronotum above with a broad, white vitta laterally on disk. Elytra with numerous small, rounded, white maculae, scattered on basal third and somewhat concentrated before and behind middle into two broken fascia, the intervening spaces with small flecks of white; apically with a few whitish, more or less coalescent maculae. Legs and antennae black, the former rather thinly clothed with whitish pubescence as is also the antennal scape; antennae with third segment at extreme base and extreme apex fuscous pubescent, intervening area white; fourth on basal half, and bases of remaining segments thinly white annulate.

Head above finely, rather densely punctate and with a few coarser punctures; front punctate as on the vertex except the coarser punctures are more numerous, one-third again as tall as wide; eye with lower lobe obliquely transverse, two-thirds as tall as gena. Pronotum one-fourth again as broad across base as long, sides tapering apically; lateral tubercles granuliform; apical and basal sulci rather broad, shallow, straight; disk medially rather finely rugose, laterally with scattered punctures, just before basal sulcus each side of middle with a small, subobsolete tubercle. Elytra with coarse, not densely placed punctures, which are somewhat finer toward suture, basally punctures somewhat granulate; apices subobsoletely emarginate, the angles subdentiform. Prosternal process with prominence distinctly bifurcate, the anterior surface vertical; mesosternal tubercle broad, rounded, the anterior surface nearly vertical. Antennae one-third again as long as body, moderately densely fimbriate beneath on first four segments, sparsely so thence to eighth segment; scape gradually clavate to apex, which is slightly flared laterally, densely, minutely punctulate, with a few moderate sized punctures interspersed, attaining apical sulcus of pronotum; third segment straight, not tapering apically, more than two thirds again as long as first; rest gradually shorter, except eleventh which is a little longer than tenth.

Length 19.3 mm.; width 6 mm.

Holotype: Female; Tero, Uganda, July 6, 1912 (C.C. Gowley) [BM].

Remarks: While most closely allied to *seriata*, this form has the markings yellowish white, and the maculae of the elytra arranged in two broken fascia medially, leaving an almost glabrous fascia just behind middle, moreover, the antennae are annulate quite distinctly; and the scape is distinctly flared at apex.

***Acridocephala seriata* Jordan**

Acridocephala seriata Jordan, Nov. Zool. X, 1903, p. 153. Breuning, Nov. Ent. suppl. III (2) 1944, p. 385, f. 285.

Male. Black, shining. Head above with a narrow, white vitta each side of middle, convergent anteriorly; front each side of middle with a narrow vitta of sparser pubescence, and a dense white vitta beginning at upper angle of eye, becoming very broad on gena, and extending along sides of body to apex of abdomen, widest on metasternum, broken into gradually diminishing maculae on abdomen. Pronotum each side of middle with a moderately wide, white vitta, divergent basally. Elytra each with four more or less irregular series of small, rounded, separated, white maculae, interspersed with many irregular flecks of the same color, with appear also in smaller numbers toward suture and sides. Legs and pro- and mesosternum medially sparsely ashy pubescent. Antennal scape, base of second segment, and basal fourth of fourth segment beneath, ashy grey pubescent.

Head finely punctulate, with a few fine punctures interspersed; front one sixth again as tall as wide; eye with lower lobe obliquely transverse, three-fifths as tall as gena. Pronotum one-fifth wider across base than long, sides distinctly narrowing to apex, arcuate; apical and basal transverse sulci distinct, the basal one recurved medially, feebly bifurcating the median discal tubercle; disk medially rather finely,

transversely rugose, on sides with scattered, small punctures. Elytra rather finely, somewhat sparsely punctate, punctures denser and coarser toward sides; basally subobsoletely granulate-punctate; apices emarginate, shortly, robustly dentate. Prosternal process feebly bifurcate, its anterior surface vertical; mesosternal tubercle broad, not prominent, its anterior face nearly vertical. Antennae two and one-third to two and one-half times as long as body, slender, beneath fimbriate rather densely to fifth segment, sparsely so on sixth and seventh; scape gradually clavate from base, attaining apical sulcus of pronotum; third segment two-thirds again as long as first; fourth and following scarcely diminishing in length; eleventh longer than preceding three segments combined.

Female. As in male but more robust; antennae about one-quarter to one-third longer than body, segments from fourth distinctly shorter, the eleventh slightly longer than tenth.

Length 16-20.2 mm.: width 5.5-6.4 mm.

Type locality: "Batanga and Lolodorf, Cameroons"

Distribution: Cameroons.

Cameroon: 1; no further data [SM], 3; Bepindi, May 6, 1922 [CMNH] 15; Efulen [CAS]. 1; Batanga [SM]. 2; Lolodorf [SM; MCZ] 1; Kribi [authors' collection] 1; South Cameroons, May 9, 1907 (Fanggebite) [MCZ] 1; Poston [EFG]

Remarks: This form is very close to *pulchra*, but the elytral maculae are not coalescent, the posternal prominence is vertical anteriorly, the antennal scape is less robust and distinctly clavate apically, and the lateral vitta on the sternites is broken into maculae.

***Acridocephala bistriata* Chevrolat**

Acridocephala bistriata Chevrolat, Rev. Zool (2) VII, 1855, p. 287; Cent.

Long. 1858, v. 26. Murray, Ann. Mag. Nat. Hist. (4) VII, 1871, p. 50.

Jordan, Nov. Zool. X, 1903, p. 153. Breuning, Nov. Ent. suppl. III (2) 1944, p. 384.

Acridocephala variegata Aurivillius, Ent. Tidskr. VII, 1886, p. 93.

Breuning, Nov. Ent. suppl. III (2) 1944, p. 385 [new syn.]

Male. Black, antennal segments from fourth dark reddish brown. Head above with two fine, white vittae each side of middle, the inner ones converging anteriorly; front either side of middle with a broad, white vitta, laterally a similar vitta beginning along inner margin of eye, continuing broadly across gena and sides of body to tip of abdomen, on abdominal sternites broken into large maculae. Pronotum on each side of disk with a rather broad, white vitta. Elytra minutely white irrorate, and in addition with about five indistinct rows of larger maculae. Legs and antennal scape sparsely hoary pubescent; remainder of antennae fuscous pubescent, occasionally the third to sixth segments indistinctly white annulate basally.

Head finely sparsely punctate above; front slightly higher than wide, finely, rather densely punctate; eye with lower lobe obliquely transverse, about one-fifth shorter than gena. Pronotum about one-fourth as wide across base as long, sides

arcuately narrowing to apex; lateral tubercles minute, granuliform; basal and apical transverse sulci distinctly impressed, basal one straight, the apical one slightly undulate; disk medially rather coarsely, transversely rugose, on sides finely punctate and with a few coarse punctures above lateral tubercles. Elytra moderately coarsely, densely punctate, punctures only slightly sparser toward suture, at base towards humeri the punctures bearing feeble granules; apices broadly truncate, angles often dentiform. Prosternal process with anterior prominence sometimes deeply bifurcate, the anterior face more or less vertical; mesosternal tubercle rather large, rounded, feebly produced anteriorly. Antennae about two and one-half times again as long as body, rather densely fringed beneath on first four segments, sparsely so on next two; scape robust, of nearly equal thickness throughout, apex scarcely expanded laterally, surface finely punctulate and with scattered, fine punctures, attaining apical fourth of pronotum; third segment two-thirds again as long as first; fourth distinctly shorter than third; rest subequal or feebly diminishing in length; eleventh nearly as long as preceding segments together.

Female. More robust than male; antennae only one-third again as long as body, segments gradually decreasing in length from fourth, eleventh scarcely longer than tenth.

Length 19-23.5 mm.; width 6-7.6 mm.

Type locality: Calabar [*bistriata*]; Mapanja, Cameroons [*variegata*].

Distribution: West central Africa

Nigeria: 1; Old Calabar [BM]

Cameroons: 11; no further data [NRS including one type of *variegata*;

MCZ; SM] 2; Buca [NRS]. 1; Enydsberg [SM]. 1; Dibongo Vanaga [SM]. 5; Mukonje Farm [NRS]

Gabon: 1; no further data [NRS].

Remarks: *A. bristata* most closely resembles *alboannulata* in having the entire elytron white irrorate. However, in the present species, the pronotal white vittae are sharply defined and the frontal median vittae are subequal in width to that in front of the eye. Furthermore, on the vertex there are two fine, whitish vittae either side of middle instead of one broad one.

It was impossible to distinguish *A. variegata* Auriv. in the material at hand. The original description offers no diagnostic character that is constant and the type specimen was in no way distinct from the Calabar example.

***Acridocephala densepunctata* Breuning**

Acridocephala densepunctata Breuning, Nov. Ent. VIII, 1938, p. 53; op. cit. suppl III (2) 1944, p. 385.

"Close to *bistriata* Chev. but the elytra more finely punctate, without elevated discal lines, and more strongly emarginate at apex.

"The pale markings of the head, pronotum, and body beneath are yellow, elytra very densely sprinkled throughout their length with very

fine white maculae of irregular form; antennal segments annulate with white on the base beginning with third. Length: 17 mm.; width: 5½ mm. Described from an individual from Congo in the Paris Museum" [a translation of the original description].

BOOK NOTICE

MONOGRAPH OF THE TENEBRIONIDAE OF SOUTHERN AFRICA. Vol. I (Tentyriinae, Molurini-Trachynotina: Somaticus Hope). By C. Koch. xiii + 242 pp., 158 text figs. (two are tipped-in folding pp.), 24 pls. (2 in color), 2 large folding maps. Pretoria: Memoir No. 7 of The Transvaal Museum, P. O. Box 413, Pretoria. 1955.

It is startling to read in the preface to this book that the monograph is expected to run to 25 or 30 volumes. One wonders how an author, even though he can give all his time to field work and taxonomic research, and has adequate help and financial backing, can hope to complete such a task. When it is realized that 48 earlier papers by Dr. Koch, cited in the bibliography to this volume, comprise nearly 3,000 printed pages plus 159 plates, with over 800 text figures—the wonder almost vanishes!

Dr. Koch states that about one million specimens have been studied to date, yet this represents only some 1,500 described species; by the end of the monograph he expects there will be 5,000 species ". . . of what is probably the most ancient family of Coleoptera" known from Southern Africa. This will include all discovered Tenebrionidae "from African localities, situated south of a line drawn across the continent from the Kunene River in the West to the Zambesi River in the East"; or in other words, from the southern border of Angola, eastward along the Zambesi to its mouth in Mozambique. This work will result in fundamental changes in the classification of the family, and as time permits, intercontinental studies will lead to a new classification.

The present volume shows the author's broad and interpretative knowledge of the morphology and zoogeography of his group. A thorough investigation of body structure is essential in the Tenebrionidae, the great simulators of the Coleoptera, where even close and detailed similarities may not indicate monophyletic origin.

Dr. Koch makes two divisions of the family (I omit his supporting characters):

Abdomen without intersegmental membranes between distal sternites (tentyrioid Tenebrionidae, with only one subfamily, Tentyriinae).

Abdomen with intersegmental membranes between distal sternites, except for Caenocrypticini, Belopini, and entire Cossyphini [which have other recognition characters] (tenebrioid Tenebrionidae, with several subfamilies).

He sinks Casey's tribe Araeoscluzini (Texas to California, etc.) under Stenosini, and questions other of Casey's conclusions.

Plates I-V are lithographs by the late A. Raffray; X-XI are in color, from paintings by A. von Pecz and F. Diehl. The reproduction of figures on the plates is excellent, and the photographs taken with special equipment manufactured by C. Reichert of Vienna, are outstanding. Much credit should go to the Board of Trustees of the Transvaal Museum, and to the South African Council for Scientific and Industrial Research, for sponsoring this long-time project. There is no doubt that Dr. Koch is the right man, at the right time, in the right place.—HUGH B. LEECH, *California Academy of Sciences*.