

Opuscula Zoologica

Herausgegeben von der Zoologischen Staatssammlung in München

Nr. 100

15. Dezember 1967

On some Aradidae from Brasil, Argentina and Laos

(Hemiptera, Heteroptera)

By Nicholas A. Kormilev

MUS. COMP. ZOOLOGICAL LIBRARY

MAR 21 1968

HARVARD UNIVERSITY

By the kind offices of Dr. Heinz Freude of the Zoologische Sammlung des Bayerischen Staates in Munich, Germany, and Mr. Fritz Plaumann of Nova Teutonia, Santa Catarina, Brasil, I have had an opportunity to study a certain number of *Aradidae* collected in Brasil and Laos, for what I am expressing them my sincere thanks. I am also indebted to my old friend Mr. Juan Maria Bosq, an Argentine entomologist, from whom I have received the first specimen of a new *Aneurus*, collected by him in Misiones, Argentina.

Among *Aradidae* collected in Amazonas by Dr. Christa Lindemann was a new species of the genus *Notapictinus* Usinger and Matsuda, 1959, and 6 specimens of the rare species *Aneurus dissimilis* Bergroth, 1889. *Aneurus* Curtis, 1825, is a cosmopolitan genus, with numerous, rather heterogenous species, which among other characters have an abbreviated corium badly separated from a large membrane, mostly reaching only to the middle of scutellum, by greatly reduced clavus, and by a more or less semicircular scutellum. *Aneurus dissimilis* Bergroth has a corium reaching to the tip of scutellum, completely developed clavus, also reaching the tip of scutellum, and a narrow, triangular scutellum. Impressed by these characters Champion established for *Aneurus dissimilis* a separate genus, *Aneurosoma* Champion, 1898. Bergroth concurred with this change, but later changed the name to *Aneuromorpha* Bergroth, 1914, claiming that the name was preoccupied, an unnecessary change as the name was *Aneurisoma* Costa, not *Aneurosoma*. Usinger and Matsuda put *Aneurosoma* Champion into synonymy of *Aneurus* Curtis reasoning that *Aneurosoma* "although unique in the form of the apex of the scutellum, is scarcely more different than other groups within the large and diverse genus *Aneurus*". But they have overlooked the much longer corium, and particularly the important character of a fully developed clavus. It is true, that *Aneurosoma dissimilis* has the head, pronotum, abdomen, and ventral side of the body, no more different from the type species of *Aneurus*, *Aneurus laevis* Fabricius, 1775, than other species in the genus, so that we are reluctant to consider it as a separate genus, but we held it only justified to leave it a status of a subgenus.

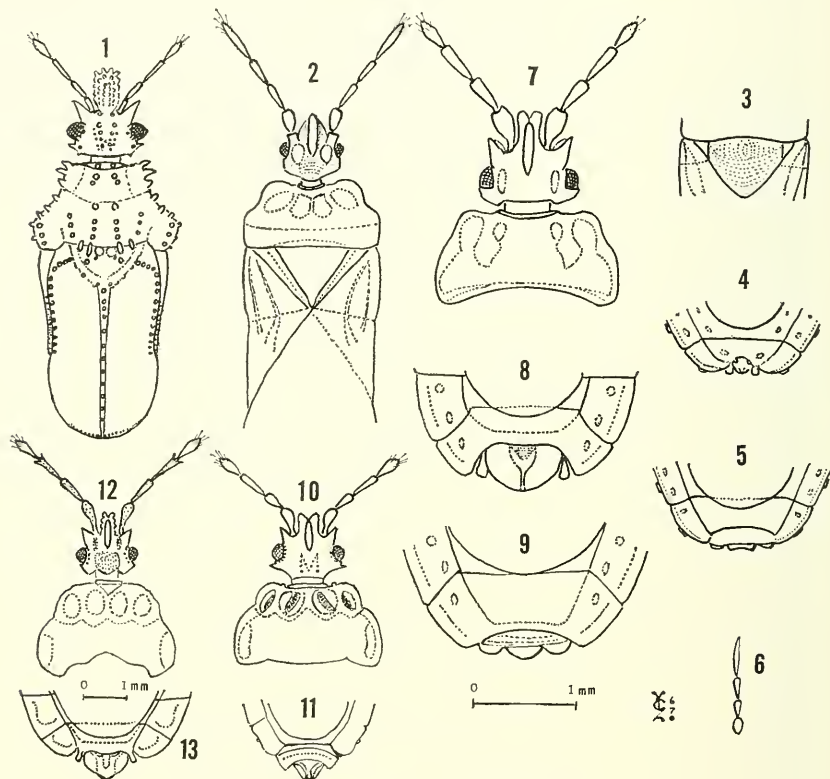
In measurements 25 units equal 1 mm.; in ratios the first figure represents the length and the 2nd the width. Length of abdomen was taken for convenience from the tip of scutellum to the tip of hypopygium (♂), or segment IX (♀), only in the species *Calisius brasiliensis* it was taken from the fore border of connexivum I to tip of hypopygium, or segment IX respectively.

Subfam. CALISIINAE.

Calisius Stål, 1860.*Calisius brasiliensis* n. sp. (Fig. 1.)

Male. Elongate ovate; head, fore disc of pronotum, and connexiva, covered with small, irregularly shaped scales.

Head as long as width across eyes (21 : 20.5). Anterior process with parallel sides, converging at base, subtruncate anteriorly, and reaching slightly over tip of antennal segment II. Antenniferous tubercles acute, with subparallel outer borders. Eyes small, semi-



EXPLANATION OF DRAWINGS

Calisius brasiliensis n. sp., Fig. 1, ♂, head, pronotum, scutellum, and corium. *Aneurus (Aneurosoma) dissimilis* Bergroth, Fig. 2, ♀, head, pronotum, scutellum, corium, and the base of membrane.

Aneurus bosqui n. sp., Fig. 3, ♂, scutellum, corium, and the base of membrane. Fig. 4, ♂, tip of abdomen from above. Fig. 5, ♀, tip of abdomen from above. Fig. 6, antenna.

Neuroctenus insignis n. sp., Fig. 7, ♂, head and pronotum. Fig. 8, ♂, tip of abdomen from above. Fig. 9, ♀, tip of abdomen from above.

Notapictinus christae n. sp., Fig. 10, ♀, head and pronotum. Fig. 11, ♀, tip of abdomen from above.

Mezira pilifera n. sp., Fig. 12, ♂, head and pronotum. Fig. 13, ♂, tip of abdomen from above.

MAR 21 1968

3

globose, protruding. Postocular tubercles tiny, spiniform, distant from eyes, reaching to outer border of the latter. Infracocular carinae each consisting of two, widely spaced spicules. Vertex with "V"-shaped granulation flanked by smaller granules. Antennae thin, slightly longer than head (23 : 21); relative length of segments, I to IV, are: 4 : 5 : 7 : 7. Labium short, reaching to hind border of labial groove, the latter closed posteriorly.

Pronotum much shorter than maximum width (20 : 37). Collar with two (1+1) small granules. Fore disc with two (1+1) granules in front row, and close behind them with two (1+1) smaller granules in hind row. Lateral borders each with three specules placed in one row. Hind disc with four (2+2) rows of granules on disc, and with two (1+1) more on humeri. Lateral borders of hind lobe with two (1+1) rows of smaller granules, placed laterad and a little lower of humeral rows.

Scutellum longer than maximum width (47.5 : 30). Basal elevation with four (2+2) recumbent spicules, and between them with two (1+1) large, flattened granules. Lateral borders of elevation with two (1+1) granules placed just behind inner spicules; base of carina with two small granules. Carina with a row of granules. From basal elevation to lateral borders of scutellum extend two (1+1) dense rows of granules, where they bend and continue along the border reaching to 3/5 of length of scutellum; tip of scutellum with a row of minute granules. Disc punctured. Scutellum reaching to 3/4 of tergum VI.

Corium with obliterated granulation, with exception of a few minute granules at the tip.

Abdomen longer than maximum width across segment IV (55 : 50). Connexivum wide; connexivum IV shorter than wide (8 : 8.5). Outer borders with a double row of granules. Paratergites with a terminal granule, and lateral spiracle. Hypopygium large, semiglobose, caudal in position, seeing from behind is shorter than wide (10 : 15). Spiracles small, II to V ventral, placed far from border, VI to VIII lateral and visible from above.

Color ochraceous; antennal segment IV, eyes, granules extending from basal elevation of scutellum to lateral borders, three last granules in rows along lateral borders of scutellum, a row along tip of the latter, terga VII and VIII, and hypopygium, are dark brown to piceous; venter testaceous; femora brown with ochraceous tips.

Total length 4.24 mm.; width of pronotum 1.48 mm.; width of abdomen 2.0 mm.

Holotype: ♂, Brasil, Santa Catarina, Nova Teutonia — F. Plaumann coll. XI. 1958; deposited in the Kormilev collection.

Paratype: 1 ♂, same locality and collector, I. 1959, in Plaumann collection.

Calisius brasiliensis new species is related to *C. pallipes* Stål, 1860, also from Brasil, but differs from it by: slightly longer antennae, longer than width of head across eyes (23 : 20, in *C. pallipes* 20 : 19); by anterior process with parallel sides, then strongly converging at base (trapezoidal in *C. pallipes*); by single rows of spicules on lateral borders of the fore lobe of pronotum (double rows in *C. pallipes*); by concolor granulation on scutellar carina, and by larger size (4.24 mm., and only 3.67 mm. in *C. pallipes*, both are males).

Note. *Calisius placidus* Horvath, 1913, distributed in the states of Goyaz and Santa Catarina, shows certain differences in antennal segments: generally, in specimens from Nova Teutonia, relative lengths of segments, II to IV, are: 3.5 : 5 : 6, and antennal segments are thin; some specimens, which I name variation A, has them 4 : 6 : 7, and segments are also thin; one specimen from Serra Geral, which I name variation B, has them again 3.5 : 5 : 6, but all segments are distinctly more robust. As other characters are similar in all specimens, and particularly the presence of finely granulate areas in black spots along basal elevation, and in the middle of lateral borders of scutellum, characteristic for this species, impedes, at least for the time being, any separation in subspecies without knowing of their ecological conditions.

Subfam. ANEURINAE.

Aneurus Curtis, 1825.

Aneurus (*Aneurosoma*) *dissimilis* Bergroth (Fig. 2.)

Aneurus dissimilis Bergroth, 1889, Wien. Ent. Zeit., 8:52.

Aneurosoma dissimilis Champion, 1898, Biol. Centr. Am., Rhynch. II:117.

Aneuromorpha dissimilis Bergroth, 1914, Ann. Mus. Nat. Hung., 12:106.

Aneurus dissimilis Usinger and Matsuda, 1959, Class. Aradidae, p. 100.

1 ♂ & 5 ♀, Brasil, Amazonas, N. Rio Cauaburi, Serra Nebulina, 1500 m. C. Lindemann coll. 25. IV. 1964.

Aneurus bosqui n. sp. (Figs. 3—6.)

Aneuromorpha dissimilis Kormilev (nec Bergroth), 1953, Ac. Zool. Lilloana, 13:253.

Male. Elongate ovate, shiny.

Head as long as width across eyes (♂—14.5 : 14.5, ♀—16 : 15.5). Anterior process conical, rounded apically, genae short, not reaching tip of anterior process. Antenniferous tubercles short, truncate. Eyes semiglobose, moderately protruding. Postocular borders form a slightly obtuse angle. Vertex finely, transversely rugose, with two (1+1) large, ovate callosities. Antennae moderately stout, almost twice as long as head (♂—27 : 14.5, ♀—30 : 16); relative lengths of segments, I to IV, are: ♂—4.5 : 5.25 : 6 : 11, ♀—4.5 : 6 : 7 : 12.5; I almost globose, II clavate, thinner than I, III tapering toward base, IV elongate fusiform. Labium reaching line connecting hind borders of eyes.

Pronotum trapezoidal, less than half as long as its maximum width across humeri (♂—15 : 33, ♀—15 : 35). Collar thin, sinuate anteriorly; antero-lateral angles forming an obtuse angle with a rounded tip; lateral borders subparallel, slightly convex at humeri, strongly converging, and almost straight anteriorly; hind border almost straight. Fore disc with a thin, median sulcus, and laterad of it with two (1+1) callosities. Hind disc transversely rugose anteriorly, glabrous posteriorly.

Scutellum subtriangular, shorter than width at base (♂—14 : 20, ♀—15 : 21). Lateral borders slightly convex, tip angularly rounded. Disc slightly elevated and longitudinally rugose anteriorly, concentrically rugose posteriorly.

Hemelytra reaching to 1/3 of tergum VII (♂), or to hind border of tergum VI (♀). Corium short, reaching to 1/3 of scutellum; membrane finely wrinkled. Clavus practically absent.

Abdomen ovate in both sexes, longer than maximum width across segment V (σ —62.5 : 50, ♀ —68 : 61). Lateral borders convex; exterior borders of connexiva with semiobliterated granulation, and carinate along the border; PE-angles not protruding. Paratergites (σ) small, button like, produced beyond hindborder of a small hypopygium; the latter shorter than wide (2.5 : 6), strongly declivous, with a rounded median ridge at tip, and with two (1+) small, round elevation at base laterally. Paratergites (♀) very short, convex, reaching to middle of segment IX, the latter wide and very short, slightly sinuate posteriorly. Spiracles II, V — VII lateral and visible from above, III — IV ventral placed close to margin, VIII terminal.

Legs with fusiform, inflated femora.

Color brown; antennal segment IV, clypeus, tergum, connexivum, and tibiae lighter; labium and tarsi yellow.

Total length: σ —4.36, ♀ —4.68 mm.; width of pronotum: σ —1.36, ♀ —1.40 mm.; width of abdomen: σ —2.00, ♀ —2.04 mm.

Holotype: σ , Argentina, Misiones — J. M. Bosq coll. VII. 1936; deposited in the Kormilev collection.

Allotype: ♀ , Argentina, Misiones, N. Leandro Alem — Gaytopulo coll. XI. 1950; in the same collection.

Paratypes: 3 σ & 2 ♀ , collected with allotype; 1 σ & 1 ♀ , Brasil, Rio Grande do Sul — J. Bäckér coll. 4. I. 1949.

It is a pleasure to dedicate this species to its first collector, my old friend Mr. Juan Maria Bosq, an Argentine entomologist.

Aneurus bosqui n. sp. may be separated at once from other Argentine and Brazilian species by subtriangular scutellum, and very small hypopygium.

KEY TO ANEURUS SPECIES FROM SOUTHERN PART OF SOUTH AMERICA.

1. Scutellum narrow, triangular; corium reaching to tip of scutellum; clavus developed, also reaching tip of scutellum Subgenus *Aneurosoma* Champion.
A single species *Aneurus (Aneurosoma) dissimilis* Bergroth, 1889, Brasil.
- Scutellum wider, subtriangular or semicircular; corium never produced more than 2/3 of scutellum; clavus rudimentary Subgenus *Aneurus* Curtis.
All other species 2.
2. Scutellum subtriangular with moderately convex sides and angularly rounded tip *bosqui* n. sp., Argentina, Brasil, Paraguay.
- Scutellum semicircular with widely rounded tip 3.
3. Genae produced like spines curved outward *bispiniceps* Kormilev, 1960, Brasil.
- Genae normal, adherent to clypeus 4.
4. Body elongate with parallel sides; first three antennal segments equal in length *sahlbergi* Bergroth, 1886, Brasil.
- Body ovate, with convex sides; antennal segment I always shorter than II 5.
5. Antennal segment II subequal in length to III 6.
- Antennal segment II always shorter than III 8.
6. Larger species, about 6 mm.; anterior angles of pronotum produced forward forming a small tip *bolivianus* Kormilev, 1960, Bolivia.
- Smaller species, about 5 mm., or less; anterior angles of pronotum rounded and without tip 7.

7. Paratergites (♂) large, reaching to 2/3 of hypopygium; paratergites (♀) reaching to hind border of segment IX *plaumanni* Kormilev, 1965, Brasil.
- Paratergites (♂) smaller, reaching slightly over the middle of hypopygium; paratergites (♀) distinctly produced beyond segment IX *subdipterus* Burmeister, 1835, Brasil, Argentina, Paraguay.
8. Larger species, about 5.5—6 mm.; postocular borders angular forming a right, or slightly acute angle; propleuron without ridge posteriorly *fritzi* Kormilev, 1960, Bolivia.
- Smaller species, about 5 mm.; postocular borders forming prominent, subangular lobe with rounded tip; propleuron with a high ridge, posteriorly, seen from above *bucki* Kormilev, 1965, Brasil.

Subfam. MEZIRINAE.

***Neuroctenus* Fieber, 1861.**

***Neuroctenus insignis* n. sp. (Figs. 7—9.)**

Male. Closely related to *Neuroctenus centralis* (Berg), 1879, from North Argentina, but smaller, lateral borders of pronotum sinuate (slightly convex in *N. centralis*); paratergites (♂) smaller, reaching to 2/3 of hypopygium (to 3/4 in *N. centralis*); hypopygium less deeply sulcate medially. Paratergites (♀) also rounded, but shorter, not reaching to tip of segment IX (reaching in *N. centralis*). Other characters are similar.

Measurements: head ♂—22 : 23, ♀—23 : 24; relative lengths of antennal segments, I to IV, are: ♂—9 : 9 : 10 : 9, ♀—10 : 9 : 10.5 : 9; pronotum ♂—19 : 45, ♀—22 : 50; scutellum ♂—20 : 28, ♀—23 : 32; abdomen ♂—75 : 55 across segment V, ♀—85 : 62 across segment IV.

Color: piceous; base of membrane whitish.

Total length ♂—5.6, ♀—6.2 mm.; width of pronotum ♂—1.8, ♀—2.0 mm.; width abdomen ♂—2.2, ♀—2.48 mm.

Holotype: ♂, Brasil, Santa Catarina, Nova Teutonia — F. Plaumann coll. IX. 1965; deposited in the Kormilev collection.

Allotype: ♀, Same locality and collector, XI. 1965; deposited in the Plaumann collection, Nova Teutonia, S. Catarina, Brasil.

Paratypes: 5 ♂ & 4 ♀, same locality and collector, X. 1965; in the same collections.

***Notapictinus* Usinger and Matsuda, 1959.**

***Notapictinus christae* n. sp. (Figs. 10—11.)**

Female. Elongate ovate, slightly widening backwards.

Head shorter than width across eyes (14 : 17). Anterior process with subparallel sides, rounded anteriorly, and incised at tip, reaching to 3/4 of antennal segment I. Antenniferous tubercles dentiform, slightly divergent. Eyes large, semiglobose, protruding. Postocular tubercles spiniform, produced over outer border of eyes. Vertex with "M"-shaped fine granulation. Antennae less than twice as long as head (25 : 14); relative lengths of segments, I to IV, are: 6 : 5 : 7 : 7. Labium short, reaching to hind border of labial groove.

Pronotum shorter than maximum width (20 : 35). Collar narrow, finely granulate, truncate anteriorly. Antero-lateral angles slightly expanded, rounded, reaching as far as collar. Lateral notch rounded, distinct. Fore disc with four (2+2) ridges. Lateral borders of hind

lobe parallel, rounded and converging anteriorly. Hind border almost straight. Hind disc granulate.

Scutellum shorter than width at base (18 : 20); all borders carinate; tip narrowly rounded; lateral borders sinuate at apical half; disc scabrous, transversely rugose; median carina thin, but distinct.

Hemelytra reaching to 2/3 of tergum VII. Corium with basolateral borders straight and reflexed; postero-lateral almost straight; apical angle narrowly rounded; apical border convex exteriorly, sinuate interiorly; membrane transversely wrinkled.

Abdomen elongate ovate, with weakly convex sides. Connexivum narrow, scabrous; connexiva carinate along exterior border; PE-angles not protruding; PE-VII rounded. Paratergites angularly rounded, reaching 1/3 of segment IX, latter truncate posteriorly. Spiracles II to VI ventral and not visible from above, VII and VIII lateral and visible.

Color ferruginous; antennae, connexivum, and legs, slightly lighter; labium and tarsi orange yellow.

Total length 4.4 mm.; width of pronotum 1.4 mm.; width of abdomen 1.6 mm.

Holotype: ♀, Brasil, Amazonas, N. Rio Cauaburi, Serra Neblina — Dr. C. Lindemann coll. 8. IV. 1964; deposited in the Zoologische Sammlung des Bayerischen Staates, München.

It is a pleasure to dedicate this species to its collector Dr. Christa Lindemann.

Notapictinus christae n. sp. is related to *N. uruguayensis* Kormilev, 1966, from which it differs by: antero-lateral angles of pronotum not produced beyond collar, and paratergites much shorter, reaching only to 1/3 of segment IX (to 3/4 of segment IX in *N. uruguayensis*).

The number of species belonging to the genus *Notapictinus* Usinger and Matsuda is growing very fast and existing keys are out of date, so we have constructed a new one, to include all newly described species.

KEY TO THE SPECIES

OF NOTAPICTINUS USINGER AND MATSUDA.

1. Micropterous or brachypterous species 2.
- Macropterous species 4.
2. Spiracles of segment II lateral and visible from above
 *parvulus* Kormilev, 1960, Brasil.
- Spiracles of segment II ventral and not visible from above 3.
3. Pads of hemelytra reduced to round scales, not longer than 1/3 of scutellum; paratergites (♂) in shape of a hook
 *micropterus* Kormilev, 1964, Brasil.
- Pads of hemelytra reaching to tip of scutellum; paratergites (♂) in shape of a sickle *brachypterus* (Drake & Kormilev), 1958, Brasil.
4. Spiracles of segment II lateral and visible from above 5.
- Spiracles of segment II ventral and not visible from above 8.
5. Spiracles of segment VI lateral and visible from above
 *denticollis* (Champion), 1898, Panama.
- Spiracles of segment VI ventral and not visible from above 6.
6. Connexivum concolor; smaller species, less than 4.0 mm. 7.
- Connexivum bicolor, larger species, 4.0—4.3 mm.
 *beckeri* (Kormilev), 1959, Brasil.
7. Antennal segment III twice as long as II
 *nanus* (Kormilev), 1959, Paraguay.
- Antennal segment III only 1½ times as long as II
 *sanmigueli* (Kormilev), 1959, Argentina.

8. Spiracles of segment VI lateral and visible from above 9.
 — Spiracles of segment VI ventral, at most placed near margin, but not visible from above 20.
 9. Connexivum concolor *derivatus* (Kormilev), 1959, Brasil.
 — Connexivum bicolor, or tricolor 10.
 10. Head as long, or almost as long as width across eyes 11.
 — Head distinctly shorter than width across eyes 13.
 11. Smaller species, less than 4.0 mm.; antennal segment III as long, or slightly shorter than IV *aurivillii* (Bergroth), 1887, USA.
 — Larger species, over 4.5 mm.; antennal segment III at least 1½ times as long as IV 12.
 12. Antero-lateral angles of pronotum almost rectangular, neither produced forward, nor sideways *paramaculatus* Kormilev, 1960, Brasil.
 — Antero-lateral angles of pronotum expanded forward and sideways as oblong lobes *angulatus* Kormilev, 1964, Peru.
 13. Postocular tubercles at most reaching to outer margin of eyes 14.
 — Postocular tubercles produced beyond outer margin of eyes 17.
 14. Smaller species, less than 4.5 mm. (♂); antennal segment IV longer than II 15.
 — Larger species, over 5mm. (♂); antennal segment IV as long as, or shorter than II 16.
 15. Antero-lateral angles of pronotum rounded, but neither produced forward beyond collar, nor sideways; paratergites (♂) simple, clavate *breviceps* (Champion), 1898, Panama.
 — Antero-lateral angles of pronotum produced forward beyond collar; paratergites (♂) curved, flat, with tips resting on hypopygium *platyceps* Kormilev, 1966, Brasil.
 16. Antennal segment I distinctly longer than II (15:12); hypopygium without median carina *dyscritus* Kormilev, 1960, Peru.
 — Antennal segment I barely longer than II (13:12); hypopygium with a distinct median carina *stâli* (Kormilev), 1959, Peru.
 17. Antennal segment III twice as long as II; paratergites (♂) in a shape of a hook, with their tips resting on hypopygium *diharpagus* Kormilev, 1960, Peru.
 — Antennal segment III less than twice as long as II; paratergites (♂) normal, clavate 18.
 18. Antennal segment II as long as IV (10:10); connexivum with yellow incrustation *luteoincrustatus* (Kormilev), 1959, Peru, Bolivia.
 — Antennal segment II distinctly shorter than IV (7.5:10); body without yellow incrustation 19.
 19. Smaller species, less than 4.0 mm. (♀); antennal segments III and IV together much longer than head wide (18:15) *martinezi* (Kormilev), 1953, Argentina.
 — Larger species, over 4.0 mm. (♀); antennal segments III and IV together as long as head wide (18.5:18) *maculatus* (Kormilev), 1959, Bolivia, Brasil.
 20. Antennal segment III as long as, or slightly shorter than IV 21.
 — Antennal segment III longer than IV 25.
 21. Antennae short, segments II to IV together as long as head wide (16:16); hypopygium produced backward as a long, rounded apically trunk *terminalis* Kormilev, 1964, Brasil.
 — Antennae longer, segments II to IV together much longer than head wide; hypopygium normal 22.
 22. Antennal segments III and IV together longer than head wide (18:15) *incaicus* Kormilev, 1964 Peru.
 — Antennal segments III and IV together at most as long as head wide 23.
 23. Antennal segments III and IV together as long as head wide (16:16) *rutilus* (Kormilev), 1959, Brasil.
 — Antennal segments III and IV together shorter than head wide 24.
 24. Antero-lateral angles of pronotum produced forward beyond collar; paratergites (♀) reaching to 3/4 of segment IX *uruguayensis* Kormilev, 1966, Uruguay.

- Antero-lateral angles of pronotum produced forward as far as collar; paratergites (♀) reaching only to 1/3 of segment IX *christae* n. sp., Brasil.
25. Connexivum concolor; smaller species, less than 4.0 mm. *parviceps* (Champion), 1898, Panama.
- Connexivum bicolor or tricolor; larger species, over 4.0 mm. 26.
26. Antennal segment III slightly longer than IV (11:9) *dominicus* Usinger, 1936, Dominica I.
- Antennal segment III much longer than IV (14.5:11) 27.
27. Antennal segment I as long as II (11:11) *kjellanderi* Kormilev, 1964, Peru.
- Antennal segment I longer than II 28.
28. Anterior process short, reaching only to 1/3 of antennal segment I; antero-lateral angles of pronotum form a right angle with rounded tip, not produced forward beyond collar *quadriceps* (Champion), 1898, Panama.
- Anterior process longer, reaching to 3/5 of antennal segment I; antero-lateral angles of pronotum produced forward beyond collar *ornatus* Kormilev, 1966, Brasil.

Notapictinus terminalis Kormilev

Notapictinus terminalis Kormilev, 1964, Studia Ent., 7:159, fig. 8.

This species was described on base of a single specimen, male, now I am able to describe a female.

Female. Similar to male, PE-VII forming rounded lobes; paratergites large, rounded, reaching to 3/4 of segment IX; the latter is tricuspidate.

Measurements: head 14:17, relative lengths of antennal segments, I to IV, are: 6:4:6:6.5; pronotum 18:32.5, scutellum 18:20; abdomen 57:37 across segment V.

Color: dark ferrugineous; antennae, legs, and connexivum, are lighter, light ferrugineous; labium and tarsi yellow; posterior borders of connexiva also yellow.

Total length 4.16 mm.; width of pronotum 1.30 mm.; width of abdomen 1.48 mm.

Allotype: ♀, Brasil, Santa Catarina, Nova Teutonia — F. Plaumann coll. 1. V. 1966; deposited in the Plaumann collection.

Mezira Amyot and Serville, 1843.

Mezira pilifera n. sp. (Figs. 12—13.)

Male. Belongs to "membranacea group". From *Mezira membranacea* (F.), 1803, it differs by: postocular tubercles shorter, not reaching to outer borders of eyes; antero-lateral angles of pronotum rounded, neither produced forward, nor sideways, and not rimmed (in *M. membranacea* they are narrowly, but distinctly rimmed); fore disc of pronotum with four (2+2) granulate ridges, which are more salient, particularly the outer ones; lateral borders of abdomen more convex, outer borders of connexiva V and VI are straight, forming an obtuse angle, outer borders of VI and VII forming another (in *M. membranacea* only VI and VII forming an obtuse angle). Hypopygium is relatively shorter, 20:30 (in *M. membranacea* it is longer, 24:30, and it is less depressed along median ridge). Granulation on the antennae, head, and pronotum, is more salient, and some granules are shiny. Pronotum, scutellum, and veins of corium covered with scarce, stiff, erect, black bristles; similar but inclined bristles are on head and antennae

(in *M. membranacea* these bristles are absent, there are only short, curled, rusty hairs).

Measurements: head 35:40; relative lengths of antennal segments, I to IV, are: 22:20:20:17; pronotum 45:85, width of fore lobe to width of hind lobe as 62:85; scutellum 42:45; abdomen 112:102 across segment IV.

Color: pitchy black; tips of antennal segments IV, labium and tarsi, brown to sepia.

Total length 9.6 mm.; width of pronotum 3.4 mm.; width of abdomen 4.08 mm.

Holotype: ♀, Laos near Paklay — collector unknown, 1963; deposited in the Zoologische Sammlung des Bayerischen Staates, München.

REFERENCES

- Bergroth, E., 1866: Zur Kenntnis der Aradiden; Verh. Zool. Bot. Ges., Wien, **36**:53—60, 1 pl.
- — 1887: Note sur quelques Aradides nouveaux ou peu connu; Rev. Ent. Caen, **6**:244—247.
- — 1889: Novas Aradidarum species; Wien. Ent. Ztg., **8**:49—52.
- — 1914: Zur Kenntnis der Gattung *Aneurus* Curt. (Hem. Aradidae); Ann. Mus. Nat. Hung., **12**:89—108.
- Burmeister, H., 1835: Handbuch der Entomologie, Rhynchota; **2** (1): 253—257.
- Champion, G. C., 1898: Biol. Centr. Am., Heteroptera, Fam. Aradidae, 2:65—117, 3 pl.
- Kormilev, N. A., 1953: Aradidae (Hemiptera) Argentinae II; Ac. Zool. Lilloana, **13**:207—256, 21 figs, 3 pl.
- — 1959: Notas sobre Aradidae Neotropicales V (Hemiptera); Rev. Soc. Uruguay Ent., **3**:21—33, 1 pl.
- — 1960: Notes on Aradidae in the U. S. National Museum (Hemiptera) II; Jour. New York Ent. Soc., **68**:36—47, 10 figs.
- — 1960: Notas sobre Aradidae Neotropicales VIII (Hemiptera); An. Soc. Cient. Arg., **169**:83—94, 5 figs.
- — 1960: Notas sobre Aradidae Neotropicales X (Hemiptera); Rev. Soc. Uruguay Ent.; **4**:3—17, 1 pl.
- — 1960: Notes on Neotropical Aradidae XI (Hemiptera); Jour. New York Ent. Soc., **68**:208—220, 9 figs.
- — 1964: Neotropical Aradidae XII (Heteroptera:Aradidae); Jour. New York Ent. Soc., **72**:34—39, 6 figs.
- — 1964: Notes on Aradidae in the Naturhistoriska Riksmuseum, Stockholm (Hem. Het.); Ark. Zool., Sr. 2, **16**:463—479, 21 figs.
- — 1964: Notes on Neotropical Aradidae XIV (Hem. Het.); Studia Ent., **7**:153—160, 8 figs.
- — 1965: Notes on Neotropical Aradidae XV; Opusc. Zool., **84**:1—7, 10 figs.
- — 1966: Notes on Aradidae in the U. S. National Museum IV (Hem. Het.); Proc. U. S. Nat. Mus., **119** (No 3548):1—25, 23 figs.
- Drake, C. and Kormilev, N. A., 1958: Concerning the apterous Aradidae of the Americas (Hemiptera); Ann. Ent. Soc. Am., **51**:241—247, 2 figs.
- Usinger, R. L., 1936: Studies in the American Aradidae with descriptions of new species (Hemiptera); Ann. Ent. Soc. Am., **29**:490—516, 2 pl.
- Usinger, R. L. and Matsuda, R., 1959: Classification of the Aradidae (Hem. Het.), London, vii—410 pp., 101 figs.

Address of the Author:
365 Lincoln Pl., Ap. 2 F,
Brooklyn, N. Y., 11238, U. S. A.

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Opuscula zoologica](#)

Jahr/Year: 1967

Band/Volume: [100](#)

Autor(en)/Author(s): Kormilev Nicholas Alexander

Artikel/Article: [On some Aradidae from Brasil, Argentina and Laos 1-10](#)