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ARADIDAE IN THE BISHOP MUSEUM, HONOLULU II, (Hemiptera-Heteroptera)[1]

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Abstract: This paper only treats the subfamily Aneurinae which is represented by 16 species (8 n. sp., 1 n. subsp.) from China, Viet Nam, Borneo, New Guinea, New Ireland and the Solomon Islands. A new subgenus, *Aneurillus* Kormilev is proposed for *Aneurus cetratus* Bergroth, 1914, and related species. Keys are given for the "micronesicus group", and for subgenus *Aneurillus*.

The subfamily Aneurinae has an almost world-wide distribution. It is recorded from all 5 continents and the large islands of Madagascar, New Guinea, and New Zealand. In the Oriental Region and Pacific its distribution ranges from India to the Philippines, and further east to Micronesia and New Caledonia, but I have not seen a single specimen east of the Carolines, Solomons and New Zealand, although I have examined hundreds of Aradidae from there. Even on Fiji, it seems, Aneurinae are not represented, whereas Calisiinae and Mezirinae were recorded from as far as Samoa, Tahiti, and even Rapa I., and Carventinae from such remote islands as Lord Howe.

Very homogenous in its aspect, Aneurinae have only two valid genera: an almost cosmopolitan macropterous genus, *Aneurus* Curtis, 1825, and a monophyletic micropterous genus, *Aneuraptera* Usinger & Matsuda, 1959 which is recorded only from New Zealand. Usinger & Matsuda synonymized the third genus, *Aneurosoma* Champion, 1898 with *Aneurus* Curtis (1959: 95), arguing that "at this time, it seems best to follow a conservative course", and not to split the large and diverse genus *Aneurus* into smaller units.

I do not know when and by whom, the entire genus *Aneurus* will be monographed, but I prefer here to do what Usinger & Matsuda have done with the genus *Mezira* Amyot & Serville, 1843 - to segregate the small, but well defined groups as soon as an opportunity occurs.

Not so long ago, I revalidated *Aneurosoma* Champion as a subgenus of *Aneurus* Curtis when treating the Neotropical *Aneurus* species (N. A. Kormilev, "On some Aradidae from Brasil, Argentina, and Laos," in press). Now I wish to separate as a subgenus *Aneurus cetratus* Bergroth, 1914, and related species, which all have in common a few distinct characters absent in other *Aneurus* species. For this new subgenus I propose the name *Aneurillus*.

All measurements indicated in descriptions were taken with a micromillimeter eyepiece,

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25 units=1 mm. First figure in ratios is the length, and the second the width of measured portion. The length of abdomen, for convenience, was taken from the tip of scutellum to the tip of hypopygium, or segment IX in the female.

Aknowledgements: I wish to again express my gratitude to Dr Peter D. Ashlock, Bernice P. Bishop Museum who made possible the loan of these aradid specimens for study. I am also indebted to Prof. Dr E. Tortonese, Director, Museo Civico di Storia Naturale "Giacomo Doria" in Genoa for a loan of a cotype of *Aneurus cetratus* Bergroth, 1914, and Dr P. H. van Doesburg, Jr., of the Rijksmuseum van Natuurlijke Historie in Leiden, for sending a drawing of the hypopygium of *Aneurus jakobsoni* Bloete, 1965.

DISTRIBUTION OF ASIATIC AND PACIFIC *ANEURUS* SPECIES

No.	NAME	Russian Far East	Japan	China	Viet Nam	Burma	India	Ceylon	Indonesia	Philippines	Mariana Is.	Caroline Is.	New Guinea	Solomon Is.	New Caledonia
	Subgenus *Aneurus* s. str.														
1.	macrotylus Jakovlev, 1880	*	*	–	–	–	–	–	–	–	–	–	–	–	–
2.	sinensis Kiritshenko, 1913	–	–	*	–	–	–	–	–	–	–	–	–	–	–
3.	nitidulus Kormilev, 1955	–	–	*	–	–	–	–	–	–	–	–	–	–	–
4.	yunnanensis Hsiao, 1964	–	–	*	*	–	–	–	–	–	–	–	–	–	–
5.	hainanensis n. sp.	–	–	*	–	–	–	–	–	–	–	–	–	–	–
6.	sublobatus n. sp.	–	–	*	–	–	–	–	–	–	–	–	–	–	–
7.	sinuatipennis Bergroth, 1914	–	–	*	*	–	*	–	–	–	–	–	–	–	–
8.	vietnamensis n. sp.	–	–	–	*	–	–	–	–	–	–	–	–	–	–
9.	indicus Bergroth, 1892	–	–	–	–	*	–	–	–	–	–	–	–	–	–
10.	sublaevis Bergroth, 1914	–	–	–	–	–	*	–	–	–	–	–	–	–	–
11.	greeni Distant, 1905	–	–	–	–	–	–	*	–	–	–	–	–	–	–
12.	conviva Bergroth, 1914	–	–	–	–	–	–	–	*	–	–	–	–	–	–
13.	socialis Bergroth, 1914	–	–	–	–	–	–	–	*	–	–	–	–	–	–
14.	sutteri Kormilev, 1953	–	–	–	–	–	–	–	*	–	–	–	–	–	–
15.	plicatus Bergroth, 1914	–	–	–	–	–	–	–	–	*	–	–	–	–	–
16.	lobatus Matsuda & Usinger, 1957	–	–	–	–	–	–	–	–	–	*	–	–	–	–
17.	micronesicus Esaki & Matsuda, 1951	–	–	–	–	–	–	–	–	–	–	*	–	–	–
18.	micronesicus communis n. ssp.	–	–	–	–	–	–	–	–	–	–	–	*	–	–
19.	bironis Bergroth, 1914	–	–	–	–	–	–	–	–	–	–	–	*	–	–
20.	toxopeusi Bloete, 1965	–	–	–	–	–	–	–	–	–	–	–	*	–	–
21.	subsimilis n. sp.	–	–	–	–	–	–	–	–	–	–	–	*	–	–
22.	proximus n. sp.	–	–	–	–	–	–	–	–	–	–	–	*	–	–
23.	rugosiceps n. sp.	–	–	–	–	–	–	–	–	–	–	–	*	–	–
24.	gressitti n. sp.	–	–	–	–	–	–	–	–	–	–	–	*	–	–
25.	solomonensis n. sp.	–	–	–	–	–	–	–	–	–	–	–	–	*	–
	Subgenus *Aneurillus*														
26.	jacobsoni Bloete, 1965	–	–	–	–	–	–	–	*	–	–	–	–	–	–
27.	longicollis Bloete, 1965	–	–	–	–	–	–	–	*	–	–	–	–	–	–
28.	cetratus Bergroth, 1914	–	–	–	–	–	–	–	–	–	–	–	*	*	–
29.	papuasicus Kormilev, 1967	–	–	–	–	–	–	–	–	–	–	–	*	–	–
30.	superbus Kormilev, 1967	–	–	–	–	–	–	–	–	–	–	–	*	–	–
31.	cheesmanae Kormilev, 1967 (emend. 1968)	–	–	–	–	–	–	–	–	–	–	–	*	–	*
	Total:	1	1	6	3	1	2	1	5	1	1	1	11	2	1

Subfamily ANEURINAE

Genus **Aneurus** Curtis, 1825

1. **Aneurus sinuatipennis** Bergroth

Aneurus sinuatipennis Bergroth, 1914, Ann. Mus. Nat. Hung. **12**: 99, 107.

Bergroth described a female from India and a male from Taiwan (Formosa). The 5 specimens studied are from Viet Nam; this species seems to be distributed in all of South Eastern Asia.

♂. *Head* as long as width across eyes. Anterior process reaching to, or slightly produced beyond tip of antennal segment I. Antenniferous tubercles acute exteriorly. Postocular tubercles blunt, not reaching to outer border of eyes. Vertex transversely rugose. Antennae thin, less than 2× as long as head; antennal segment I in shape of a barrel; II narrow, clavate; III cylindrical, petiolate at base; IV fusiform, enlarged on apical 1/2. Relative length of antennal segments I-IV, ♂ (4.5 :5.5 : 5.25 : 12), ♀ (5 : 5.25 : 5.25 : 12). Labium reaching to posterior border of eyes. *Pronotum* less than 1/2 as long as its maximum width. Anterior borders laterad of collar slightly sinuate and receding mesally; anterolateral angles rounded and slightly produced beyond collar; lateral borders parallel at humeri, converging and sinuate anteriorly; hind border sinuate in middle. Fore disc with 2 (1+1) large callosities, and laterad of them with 2 (1+1) groups of small, semifused callosities; finely granulate between and in front of callosities. Hind disc finely longitudinally striate, with exception of 2 (1+1) transverse, elongate, glabrous spots. *Scutellum* subtriangular, with arcuate lateral borders, and widely rounded apex. Disc concentrically rugose in middle of basal 1/2, concentrically striate around rugosity. *Hemelytra* reaching to middle (♂), or slightly over fore border (♀) of tergum VII. Corium reaching to middle of scutellum. *Abdomen* with PE-angles of connexiva slightly protruding; exterior borders of connexiva with a semi-obliterated crenulation. Spiracles II, and V-VII lateral, and visible from above; III and IV ventral; VIII terminal. ♂: paratergites small, rounded, reaching to middle of hypopygium; the latter large, acorn shaped. ♀: paratergites short, rounded, not reaching as far as segment IX; the latter truncate, about 1/3 as wide as head across eyes.

Measurements: head: ♂ (16: 16.5), ♀ (17: 17); pronotum: ♂ (14: 35), ♀ (15: 37); scutellum: ♂ (13: 23), ♀ (15: 37); abdomen: ♂ (71: 48), ♀ (76: 53); hypopygium: 10: 10; ratio of width of segment IX (♀) to width or head as 6: 17.

Color: reddish brown; membrane brown.

Total length: ♂ (4.68), ♀ (4.96 mm); width of pronotum: ♂ (1.40), ♀ (1.48 mm); width of abdomen: ♂ (1.92), (♀ 2.12 mm).

VIET NAM: 3♂♂ & 2♀♀, Di Linh (Djiring), 92 m, 22-28. IV. 1960. under bark, L. W. Quate.

2. **Aneurus nitidulus** Kormilev

Aneurus nitidulus Kormilev, 1955, Quart. J. Taiwan Mus. **8**: 189, fig. 22-24.

S. CHINA: 1♀, E Kwangtung, Yim Na San, 14.VI.1936, J. L. Gressitt.

Originally described from Fukien. Spiracles: II, and V-VII lateral; III and IV ventral, placed far from border; VIII terminal. Paratergites (♀) subtriangular, produced beyond segment IX.

3. **Aneurus hainanensis** Kormilev, new species Fig. 1–3.

♂. Similar to *Aneurus sinuatipennis* Bergroth, 1914, but anterior process of head more enlarged at base, and more tapering apically, reaching as far as antennal segment I. Antennal segment III more enlarged apically. Antenniferous tubercles blunt exteriorly; postocular strong, acute, almost reaching as far as outer border of eyes. Anterolateral angles of pronotum not produced beyond collar. Spiracles : II, and VII lateral ; III–VI ventral, placed far from border; VIII terminal.

Measurements: head: ♂ (15 : 17), ♀ (16 : 17); relative length of antennal segments I–IV, are: ♂ (5 : 6 : 6 : 10.5), ♀ (5 : 6 : 6 : 12); pronotum : ♂ (13 : 33), ♀ (14 : 35); scutellum: ♂ (14 : 21), ♀ (14 : 22); abdomen: ♂ (70 : 49), ♀ (75 : 53); hypopygium: 10 : 10; ratio of width of segment IX (♀) to width of head as 6 : 17.

Color: reddish brown; tergum in middle yellow brown, or yellow.

Total length: ♂ (4.60), ♀ (4.72 mm); width-pronotum: ♂ (1.32), ♀ (1.40 mm); width of abdomen: ♂ (1.96), ♀ (2.12 mm).

Holotype ♂ (BISHOP 7621), CHINA, Hainan I., Cheng-kon-ts'uen, Ka-luk-kon, 29 km (18m) E of Nam-fung, Kiungshen Dist., 13–14.IV.1935, F. K. To. Allotype ♀, (BISHOP), CHINA, Hainan I., Dwa Bi, 21.VII.1935, J. L. Gressitt.

4. **Aneurus vietnamensis** Kormilev, new species Fig. 4–5.

♀. *Head* as long as width across eyes (15 : 15). Anterior process long and narrow, reaching slightly beyond tip of antennal segment I. Antenniferous tubercles short, acute exteriorly, and directed sideways. Postocular tubercles blunt, not reaching to outer border of eyes. Vertex transversely rugose. Antennae moderately stout; I obovate; II clavate; III distinctly tapering toward base; IV fusiform; relative length, I–IV, 5 : 6 : 6 : 9. Labium slightly produced beyond hind border of eyes. *Pronotum* less than 1/2 as long as its maximum width (15 : 33); anterior borders laterad of collar straight; anterolateral angles rounded, not produced beyond collar; lateral borders parallel at humeri, converging and slightly sinuate anteriorly; hind border straight. Fore disc with 2 (1+1) bean-shaped callosities, and laterad of them with 2 (1+1) large, round, semi-obliterated, black depressions. Fore and hind discs extremely finely and densely granulate; hind disc finely longitudinally striate along hind border. *Scutellum* shorter than its basal width (15 : 20), semicircular, broadly rounded posteriorly; granulate, and with a narrow, transversely striate median line. *Hemelytra* reaching to middle of tergum VII; corium reaching to middle of scutellum. *Abdomen* longer than its maximum width (58 : 50). Connexivum very finely granulate, granules arranged in oblique lines. PE-angles distinctly protruding. Spiracles: II and VII lateral; III–VI ventral, placed far from border; VIII terminal. Paratergites subtriangular, rounded apically, produced as far as segment IX; the latter truncate, 3× narrower than head across eyes (5.5 : 15).

Color: reddish brown, partially piceous, opaque ; membrane blackish.

Total length: 4.2 mm; width of pronotum: 1.32 mm.; width of abdomen: 2.0 mm.

Holotype ♀ (BISHOP 7622), VIET NAM, Dalat, 1500 m, 29.IV–4.V.1960, L. W. Quate.

Aneurus vietnamensis n. sp. may be separated from other Oriental species by its opaque scabrous look, narrow and long anterior process of head, and by its relatively long, subtriangular paratergites (♀) being produced as far as the relatively long segment IX.

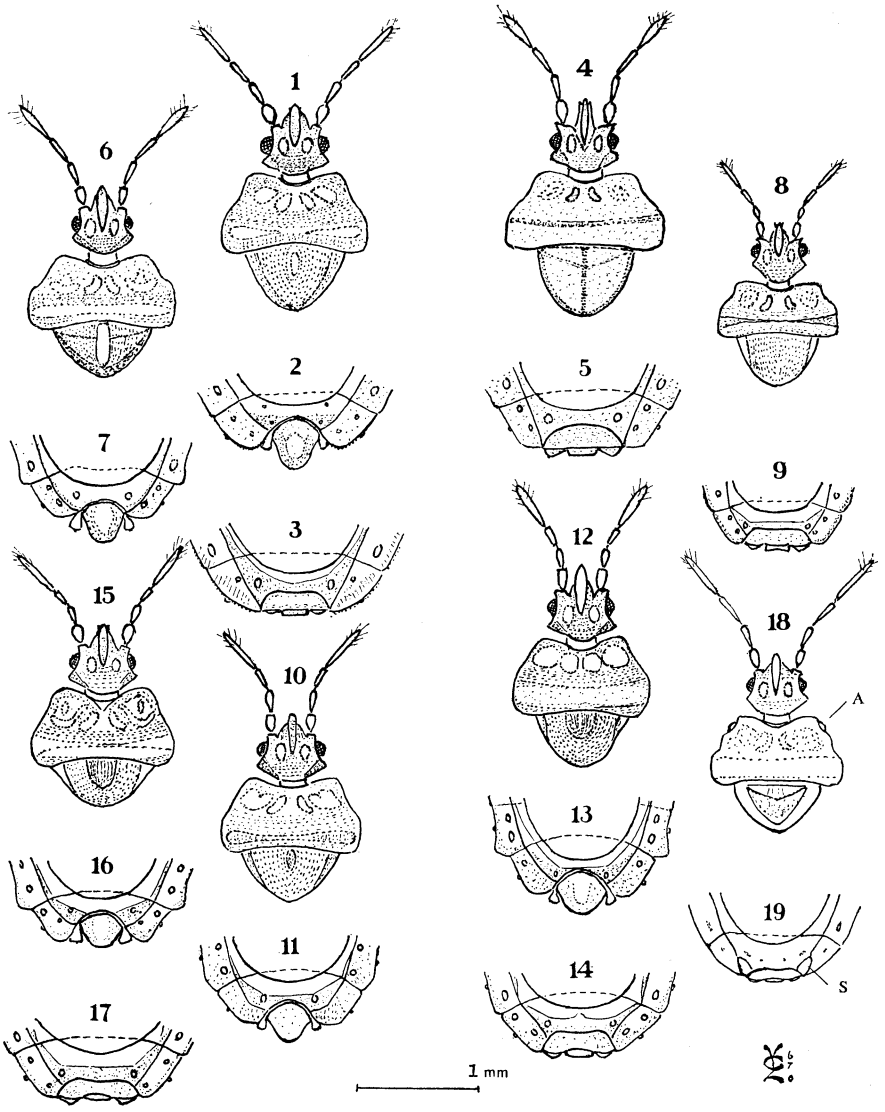

Fig. 1-19. 1, *Aneurus hainanensis*, n. sp., (♂), head, pronotum, and scutellum; 2, same, tip of abdomen from above; 3, same, (♀), tip of abdomen from above; 4, *Aneurus vietnamensis*, n. sp., (♀), head, pronotum, and scutellum; 5, same, tip of abdomen from above; 6, *Aneurus sublobatus*, n. sp., (♂), head, pronotum, and scutellum; 7, same, tip of abdomen from above; 8, *Aneurus gressitti*, n. sp., (♀), head, pronotum, and scutellum; 9, same, tip of abdomen from above; 10, *Aneurus subsimilis*, n. sp., (♂), head, pronotum, and scutellum; 11, same, tip of abdomen from above; 12, *Aneurus rugosiceps*, n. sp., (♂), head, pronotum, and scutellum; 13, same, tip of abdomen from above; 14, same, (♀) tip of abdomen from above; 15, *Aneurus solomonensis*, n. sp., (♂), head, pronotum, and scutellum; 16, same, tip of abdomen from above; 17, same, (♀), tip of abdomen from above; 18, *Aneurus cetratus* Bergroth, (♀), (cotype), head, pronotum, and abdomen; 19, same, tip of abdomen from above; A-acetabula, S-additional sclerite.

5. **Aneurus socialis** Bergroth

Aneurus socialis Bergroth, 1914, Ann. Mus. Nat. Hung. **12**: 101.

W. BORNEO: 1 ♂, Mowong, VIII. 1907, F. Muir coll.

Spiracles: II and VII lateral; III–VI ventral, placed far from border; VIII terminal.

6. **Aneurus sublobatus** Kormilev, new species Fig. 6–7.

♂. *Head* slightly longer than width across eyes (14 : 13). Anterior process not reaching to tip of antennal segment I. Antenniferous tubercles blunt exteriorly; postocular blunt, not reaching to outer border of eyes. Vertex transversely rugose. Antennae moderately thin, less than 2× as long as head (25.5 : 14); I elongate obovate; II tapering toward base; III subcylindrical, slightly enlarged toward tip; IV fusiform; relative length I–IV, 4.5 : 5 : 5.5 : 10.5. Labium reaching to middle of eyes. *Pronotum* less than 1/2 as long as its maximum width (12.5 : 30). Anterolateral angles rounded and slightly produced beyond collar; lateral borders parallel at humeri, converging and sinuate anteriorly; Hind border slightly sinuate in middle. Fore disc with 2 (1+1) kidney-shaped callosities which meet anteriorly, and laterally with a few semifused and semi-obliterated callosities. Interlobal depression with a broad, transverse, finely rugose belt. Hind disc mostly glabrous. *Scutellum* subtriangular with convex lateral borders and narrowly rounded apex; shorter than basal width (12 : 20). Median line with a glabrous strip running from fore border to 3/4 of scutellum; laterad of glabrous strip longitudinally rugose, and concentrically rugose along borders. *Hemelytra* reaching to 3/4 of tergum VII; corium reaching to 1/3 of scutellum *Abdomen* longer than its maximum width (61 : 41). Connexivum narrow, extremely finely granulate exteriorly; PE-angles not protruding from II–V; strongly protruding, but not lobate on VI; rounded on VII. Spiracles: II and VII lateral; III–VI ventral, placed far from border; VIII terminal. Paratergites rounded posteriorly, reaching to 3/4 of an acorn-shaped hypopygium, which is almost as long as wide (9.5 : 9).

Color: reddish brown, shiny; membrane white, semihyaline.

Total length: 4.0 mm; width of pronotum: 1.2 mm; width of abdomen: 1.64 mm.

Holotype ♂ (BISHOP 7623), CHINA, Hainan I., Tai-pin-ts'uen, Lam-ke-heung, Lai-moling (Mt Range), Kiung-shen Distr. 8–9. V. 1935, F. K. To.

Aneurus sublobatus n. sp. is related to *A. nitidulus* Kormilev, 1955, but may be easily separated by its angularly protruding PE-VI.

7. **Aneurus yunnanensis** Hsiao

Aneurus yunnanensis Hsiao, 1964, *Acta Ent. Sin.* **13**: 587–605 (600 english text), fig. 1–2.

VIET NAM: 1 ♂, Mt Lang Bian, 1500–2000 m, 19.V–8.VI.1961, N. R. Spencer coll.

Spiracles: II and VII lateral, III–VI ventral, placed far from border, VIII terminal. This species has a very characteristic connexivum VII: in the ♂ deeply sinuate on fore 2/3, and arcuate on hind 1/3 of exterior border; in the ♀ connexivum VII is tapering backward with a straight exterior border, forming an obtuse angle on hind 1/3.

8. **Aneurus gressitti** Kormilev, new species Fig. 8–9.

♀. *Head* as long as width across eyes (12 : 12). Anterior process with sides parallel anteriorly, converging at base, tip rounded; jugae visible from above as small teeth flanking tip of process,

which reaches to tip of antennal segment I. Antenniferous tubercles small, acute, divergent; postocular dentiform, with blunt tip, reaching, or almost reaching to outer border of eyes. Vertex transversely rugose. Antennae moderately slender, 1.5× as long as head (19:12); segment I barrel-shaped; II elongate ovate and petiolate at base; III subcylindrical, slightly tapering towards base; IV cylindrical; relative lengths I-IV, 3.5 : 3.5 : 4.5 : 7.5. Labium reaching to the middle of eyes. *Pronotum* less than 1/2 as long as its maximum width (11 : 24). Anterolateral angles rounded and slightly produced sideways. Lateral borders subparallel, slightly convex, at humeri, and strongly, almost angularly sinuate anteriorly. Hind border barely sinuate in the middle. Fore disc with 2 (1+1) crescent-shaped callosities, and laterad of them with 2 (1+1) round, granulate elevations. Hind disc finely granulate anteriorly; along hind border runs a transverse, very finely, longitudinally striate strip. *Scutellum* subtriangular, much shorter than its basal width (11 : 16); lateral borders slightly convex, almost straight; tip angularly rounded; disc with concentric rows of fine granules. *Hemelytra* reaching to 2/3 of tergum VII; corium reaching to basal 1/3 of scutellum. *Abdomen* longer than maximum width (50 : 32.5). Connexivum narrow, finely and densely granulate along exterior borders. PE-angles barely protruding; PE-VII rounded. Spiracles: II and V-VII lateral; III ventral, placed close to border; IV sublateral; VIII terminal. Paratergites subtriangular, rounded apically, produced as far as segment IX; the latter sinuate posteriorly, less than 1/2 as wide as head (5.5 : 12).

Color: Reddish brown, shiny.

Total length: 3.48 mm; width of pronotum: 0.96 mm; width of abdomen: 1.30 mm.

Holotype ♀ (BISHOP 7624), NE NEW GUINEA, Ahl Vall., nr Nondugl, 8. VII. 1955, J. L. Gressitt.

Paratypes: 1 ♀, collected with holotype; 1 ♀, NE NEW GUINEA, W. Highlands, Goiburung, E of Korn Farm, 1560-1650 m, 16.X.1958, Gressitt (BISHOP & Kormilev coll'n).

It is a pleasure to dedicate this species to Dr J. L. Gressitt of Bishop Museum, Honolulu, who collected this as well as many other new species of aradids.

Aneurus gressitti n. sp. is related to *A. socialis* Bergroth, 1914, from Indonesia, but is smaller; scutellum relatively much longer, subtriangular, angularly rounded apically; corium relatively shorter, reaching only to basal 1/3 of scutellum; position of spiracles is different.

9. **Aneurus subsimilis** Kormilev, new species Fig. 10-11.

♂. *Head* slightly shorter than width across eyes (14 : 15). Anterior process with parallel sides anteriorly, converging at base, tip rounded, reaching to tip of antennal segment I; antenniferous tubercles truncate anteriorly and parallel exteriorly, their fore and exterior borders form a right angle. Postocular tubercles dentiform, strong, subacute, reaching to outer border of eyes. Vertex transversely rugose. Antennae thin, less than 2× as long as head (24.5 : 14); segment I barrel-shaped, narrowed at base; II clavate and petiolate; III cylindrical, petiolate; IV subcylindrical, also petiolate. Relative lengths of segments, I-IV, 4 : 5 : 5 : 10.5. Labium reaching to hind border of eyes. *Pronotum* less than 1/2 as long as its maximum width (12.5 : 30). Anterolateral angles rounded and produced forward beyond collar; lateral borders slightly convex at humeri, converging and slightly sinuate anteriorly. Hind border slightly sinuate in middle. Fore disc with 2 (1+1) kidney-shaped callosities, semifused with 2 (1+1) much larger, lateral callosities; in front and between callosities finely granulate. Interlobal depression and hind disc finely longitudinally striate, with exception of 2 (1+1) transverse, elongate, glabrous spots. *Scutellum* semicircular, shorter than basal width (11 : 20). Median line anteriorly with a small, longitudinal, glabrous streak, concentrically rugose around it. *Hemelytra* reaching to middle of tergum VII.

Corium reaching to basal 1/3 of scutellum; its disc with a net of very fine wrinkles, and extremely small punctures between wrinkles. *Abdomen* longer than its maximum width (63 : 42.5). Connexivum moderately narrow, very finely granulate along borders, and very finely striate on discs. PE-angles barely protruding on II–V; slightly protruding and rounded on VI; rounded on VII. Spiracles : II, and V–VII lateral; III and IV ventral, placed very closely to border, but not visible from above; VIII terminal. Paratergites small, clavate, reaching to 3/4 of hypopygium; the latter widely ovate, shorter than wide (9 : 10).

Color: reddish brown, shiny; head, pronotum, with exception of callosities, and corium partly darker, some times blackened. Basal portion of membrane between median and lateral rugae flat, opaque, and extremely finely and densely granulate.

Total length: 4.12 mm; width of pronotum: 1.20 mm; width of abdomen: 1.70 mm.

Holotype ♂ (BISHOP 7625), WEST NEW GUINEA, Vogelkop: Kebar Val., W of Manokwari, 550 m, 4–31.I.1962, L. W. Quate.

Aneurus subsimilis n. sp. is related to *A. micronesicus* Esaki & Matsuda, 1951, from Palau & Caroline Is., but may be separated at once by only slightly protruding PE-VI, and barely protruding PE-II–V.

10. **Aneurus rugosiceps** Kormilev, new species Fig. 12–14.

♂. Closely related to *Aneurus micronesicus* Esaki & Matsuda, 1951, but larger; lateral borders of abdomen with PE-angles barely protruding, with exception of PE-VI, which is forming a rounded lobe as in *A. micronesicus*. Head transversely rugose on vertex and antenniferous and postocular tubercles; basal 1/2 of clypeus also transversely rugose. Pronotum with a deep median sulcus on fore lobe, and with 4 (2+2) large, semifused callosities laterad of it. Spiracles II, and V–VII lateral; III and IV ventrolateral, though not visible from above; VIII terminal. Paratergites (♂) reaching to 3/4 of hypopygium; the latter flattened, slightly shorter than wide (8 : 10), with apical 1/2 narrower than basal, and widely rounded tip. Paratergites (♀) subtriangular with rounded tip, produced as far as segment IX; the latter truncate. Ratio width of segment IX to width of head as 6 : 16.

Measurements: head: ♂ (15 : 14.5), ♀ (17 : 16); relative lengths of antennal segments I–IV, ♂ (5 : 4.5 : 4.5 : 11), ♀ (5.5 : 5 : 5 : 11.5); antennae relatively more robust, particularly segment IV is enlarged on apical 1/2. Pronotum: ♂ (12.5 : 29.5), ♀ (13 : 32); scutellum: ♂ (12 : 18), ♀ (13 : 22); abdomen: ♂ (64 : 40), ♀ (67 : 43).

Color: reddish brown, shiny; head, pronotum and scutellum darker, partially infuscate.

Total length: ♂ (4.20), ♀ (4.48 mm); width of pronotum: ♂ (1.18), ♀ (1.28 mm); width of abdomen: ♂ (1.60), ♀ (1.72 mm).

Holotype ♂ (BISHOP 7626), SE NEW GUINEA (Papua), S. Highlands, Mendi, 1660 m, 8. X.1958, J. L. Gressitt. Allotype ♀ (BISHOP), collected with holotype.

Paratypes: 1♂, 2 ♀♀, and 1 nymph, collected with holotype; 1 ♀, SE NEW GUINEA, S. Highlands, Dimifa, SE of Mt Giluwe, 2200 m, 9. X. 1958, J. L. Gressitt; 1 ♀, SE NEW GUINEA, Mt Giluwe, 2550 m, 27. V. 1963, J. Sedlacek; in the same and Kormilev collection.

11. **Aneurus micronesicus** Esaki and Matsuda

Aneurus micronesicus Esaki & Matsuda, 1951, *Mushi* **22**(13): 83, pl. 10, fig. B, and pl. 11, fig. K & L.

Aneurus micronesicus was described from the Palau & Caroline Is. There occurs in New

Guinea a form which is slightly larger (over 4.0 mm), with relatively longer antennae, and other small differences. It is probably only a geographical subspecies of the former and which I propose to name *Aneurus micronesicus communis*, new subspecies.

12. **Aneurus micronesicus communis** Kormilev, new subspecies

♂. Similar to *Aneurus micronesicus* Esaki & Matsuda, 1951, but larger; anterior process of head reaching, or almost reaching to tip of antennal segment I; antennae relatively longer, ratio of antennae to head, 26.7 : 15 (in *A. micronesicus* s. str. only as 23.5 : 15); antennal segment IV as long as II and III together (in *A. micronesicus* s. str. it is longer, 7.2 : 6.7). Antenniferous tubercles subacute; postocular dentiform, with blunt tip, slightly produced beyond outer border of eyes. Other characters similar. *Spiracles*: II, and V-VII lateral and visible from above; III and IV ventral, placed close to border; VIII terminal. Paratergites (♂) small, truncate posteriorly, reaching to 3/4 of hypopygium; latter flattened, shorter than its maximum width (8 : 10), narrowly arcuate posteriorly. Paratergites (♀) triangular, with slightly blunt tip, produced as far as segment IX; the latter truncate posteriorly, 2.5× narrower than head (6 : 15).

Measurements: head: ♂ (14 : 14), ♀ (15 : 15); relative lengths of antennal segments I-IV, ♂ (4.5 : 5 : 5.5 : 10.5), ♀ (4.75 : 5.5 : 5.5 : 11); pronotum: ♂ (13:30), ♀ (14 : 31); scutellum: ♂ (11 : 21), ♀ (12 : 22); abdomen: ♂ (65 : 42), ♀ (69 : 44).

Color: reddish brown, shiny; head, antennae, pronotum, scutellum, corium, and basal portion of membrane piceous to black.

Total length: ♂ (4.24), ♀ (4.80 mm); width of pronotum: ♂ (1.20), ♀ (1.54 mm); width of abdomen: ♂ (1.68), ♀ (1.76 mm).

Holotype ♂ (BISHOP 7627), NW NEW GUINEA, Swart Valley, Karubaka, 1450 m, 5. XI. 1958, J. L. Gressitt. Allotype ♀ (BISHOP), collected with holotype.

Paratypes: 1 ♂, collected with holotype; 2 ♂♂ & 1 ♀, NE New Guinea, Tomba, Slopes of Mt Hagen, 2450 m, 23.V.1963, J. Sedlacek; 1♂, NE New Guinea, Chimbu Valley, 1800 m, 16.V.1963, J. Sedlacek; 2 ♂♂, NW New Guinea, Wisselmeren, Enarotali, 1750-1800 m, 11.VIII.1962, J. Sedlacek; 3♂♂ & 4 ♀♀, W New Guinea, S. Highlands, Dimifa, SE of Mt Giluwe, 2200 m, 10.X.1958, J. L. Gressitt (BISHOP & Kormilev collection).

13. **Aneurus proximus** Kormilev, new species

♂. Closely related to *Aneurus rugosiceps* n. sp., and similar to it, but slightly larger; anterior process of head reaching to tip of antennal segment I; tips of jugae slightly visible from above. Antennae strong with segment IV much longer than II+III (15 : 11). Antenniferous tubercles truncate anteriorly, subacute exteriorly; postocular tubercles dentiform, blunt, produced as far as eyes. Labium produced slightly beyond middle of eyes.

Pronotum with anterolateral angles rounded, and slightly produced forward beyond collar; lateral borders slightly convex at humeri, converging, and slightly sinuate anteriorly; hind border distinctly sinuate in middle. Fore disc with a few irregular callosities, finely granulate in front and between them; interlobal depression with wide, longitudinally striate, transverse band. Hind disc glabrous, with exception of a thin, striate line along hind border. *Scutellum* roughly, longitudinally rugose in middle; concentrically rugose around central rugose area. *Corium* reaching to middle of scutellum. *Abdomen* with PE-angles II-V slightly protruding; *connexivum* VI forming a rounded lobe on posterior 1/2 exteriorly; VII narrower on proximal 1/2 slightly widening on posterior, with rounded PE-VII. Spiracles: II and VII lateral: III-VI ventrolateral, and

sometimes slightly visible from above; VIII terminal. Paratergites (♂) triangular, wide, truncate posteriorly, reaching to 3/4 of hypopygium; latter flattened, slightly shorter than its maximum width (10:11), and widely arcuate posteriorly. Paratergites (♀) short and rounded, not reaching to hind border of segment IX; the latter slightly sinuate posteriorly, and rounded laterally, less than 1/2 as wide as head (7:17).

Measurements: head: ♂ (16:16), ♀ (17:17); relative length of antennal segments I-IV, ♂ (5.5:5.5:5.5:15), ♀ (5.5:5.5:--:--; last 2 are missing); pronotum: ♂ (16:35), ♀ (16:37.7); scutellum: ♂ (15:25), ♀ (15:26); abdomen: ♂ (71:45), ♀ (79:49).

Color: reddish brown, shiny; head, with exception of clypeus, pronotum around callosities, and interlobal depression black; antennae, and sometimes scutellum and corium partially infuscate.

Total length: ♂ (4.96), ♀ (5.16 mm); width of pronotum: ♂ (1.40), ♀ (1.50 mm); width of abdomen: ♂ (1.80), ♀ (1.96 mm).

Holotype ♂ (BISHOP 7628), NE NEW GUINEA, Daulo Pass, 3000 m, (Asaro-Chimbu div.) 13. VI. 1955, J. L. Gressitt. Allotype ♀ (BISHOP), collected with holotype.

14. **Aneurus solomonensis** Kormilev, new species Fig. 15–17.

♂. *Aneurus solomonensis* n. sp. also belongs to "micronesicus group", but is smaller than other species from this group from New Guinea, though it is a little larger than *A. micronesicus* s. str. from Micronesia. Anterior process of head produced as far as antennal segment I; tips of jugae slightly visible from above; antenniferous tubercles acute, slightly divergent; postocular dentiform, subacute, produced slightly beyond outer border of eyes. Antennal segments II, III, and IV, petiolate at base; IV slightly longer than II+III (11.5:9). Labium reaching to middle of eyes. *Pronotum* with anterolateral angles rounded, and slightly produced forward beyond collar; lateral borders parallel at humeri, converging, slightly sinuate, and very finely crenulate anteriorly; hind border widely sinuate in middle. Fore disc with a few irregular callosities, punctured in front and between callosities; interlobal depression, and hind disc with exception of 2 (1+1) transverse, glabrous spots, finely longitudinally striate. *Scutellum* longitudinally rugose in middle anteriorly; concentrically rugose around central rugose area. *Abdomen* with PE-angles II-V slightly protruding; VI forming a moderately large, rounded lobe (smaller than in *A. micronesicus* or *A. proximus*); connexivum VII almost as wide anteriorly as posteriorly; PE-VII rounded. Spiracles: II, and V-VII lateral; III ventral, placed close to border; IV ventrolateral; VIII terminal. Paratergites (♂) large, triangular, truncate posteriorly, reaching almost to tip of hypopygium; latter flattened, shorter than its maximum width (7.5:9), narrower on posterior 1/2 than on anterior, arcuate posteriorly. Paratergites (♀) large, triangular, produced beyond posterior border of segment IX; latter truncate posteriorly, almost 1/3 as wide as head (5.5:15.5).

Measurements: head: ♂ (14:14), ♀ (15:15.5); relative lengths of antennal segments I-IV, ♂ (4:4.5:4.5:11.5), ♀ (4.5:4.75:4.75:12.5); pronotum: ♂ (12:29), ♀ (13:32); scutellum: ♂ (11:20), ♀ (11:22.5); abdomen: ♂ (59:40.5), ♀ (67:44).

Color: reddish brown; head, pronotum, scutellum, corium, and basal portion of membrane, partially darker.

Total length: ♂ (3.96), ♀ (4.36 mm); width of pronotum: ♂ (1.16), ♀ (1.28 mm); width of abdomen: ♂ (1.62), ♀ (1.76 mm).

Holotype ♂ (BISHOP 7629), SOLOMON Is., Bougainville, Kokure, 690 m, 12.VI.1956, E. J. Ford, Jr. Allotype ♀ (BISHOP), collected with holotype.

KEY TO "MICRONESICUS GROUP" OF ANEURUS SPECIES

1. Antennal segment IV much longer than II+III (15:11); spiracles V + VI ventrolateral, VII lateral (New Guinea) ..... **proximus***
   Antennal segment IV at most slightly longer than II + III (11.5:9); spiracles V-VII lateral 2
2. Spiracles III ventral, IV sublateral; paratergites (♂) large, reaching almost to tip of hypopygium; paratergites (♀) produced beyond segment IX (Solomon Is.)..... **solomonensis***
   Spiracles III and IV both, either ventral, or ventrolateral; paratergites (♂) reaching at most to 3/4 of hypopygium; paratergites (♀) reaching at most as far as segment IX 3
3. Spiracles III and IV ventrolateral; scutellum longer, ratio of length : width as 12:18 (New Guinea)..... **rugosiceps***
   Spiracles III and IV ventral, placed close to border; scutellum shorter, ratio of length: width about as 11:20; if it is slightly longer, then it is a small species, less than 4.0 mm. 4
4. Smaller species, less than 4.0 mm; antennal segment II longer than III (3.5:3.2), both together shorter than IV (6.7:7.2) (Palau, Caroline Is.)..... **micronesicus** Esaki & M.
   Larger species, over 4.0 mm; antennal segment II as long (5:5), or shorter (5:5.5) than III, both together as long, or slightly longer than IV 5
5. Connexivum VI on posterior 1/2 exteriorly forming a large rounded lobe; antennal segment III subcylindrical, but distinctly tapering towards base (New Guinea) ..... **micronesicus communis***
   Connexivum VI very slightly produced on posterior 1/2 exteriorly and rounded; antennal segment III cylindrical (New Guinea) ..... **subsimilis***

Subgenus **Aneurillus** Kormilev, new subgenus

Elongate ovate, smooth and shiny, without any granulation. Postocular tubercles small, more or less blunt, placed closer to eyes. Pronotum with lateral borders 2× sinuate; in fore sinus are visible from above fore coxa. Scutellum flat and smooth, some times with a few very fine sulci; along basal and lateral borders run fine sulci forming a kind of triangle, and separating an exoscutellum from the main disc. Between tergum VII, connexivum VII, and paratergites (♂), or tergum VIII (♀), are placed 2 (1+1) additional, small, triangular sclerites.

Type-species: *Aneurus cetratus* Bergroth 1914.

To this subgenus belong, besides *Aneurus cetratus* Bergroth, also the following species: *Aneurus jacobsoni* Bloete, 1965, from Sumatra, *A. longicollis* Bloete, 1965, also from Sumatra, *A. cheesmani* Kormilev, 1967, from New Hebrides, and *A. papuasicus* Kormilev, 1967, and *A. superbus* Kormilev, 1967, both from New Guinea.

15. **Aneurus (Aneurillus) superbus** Kormilev

Aneurus superbus Kormilev, 1967, *Eos* **42**:470, fig. 1-2.

NEW IRELAND: 1 ♀, Kandan, 24.XII.1959, W. W. Brandt.

16. **Aneurus (Aneurillus) cetratus** Bergroth

Aneurus cetratus Bergroth, 1914, *Ann. Mus. Nat. Hung.* **12**: 103.

NE NEW GUINEA: 1 ♂, Eliptamin Valley, 1200–1350 m, 1–15. VII. 1959, W. W. Brandt; 1 ♀, Tsenga, 1200 m, Upper Jimmi V., 14. VII. 1955, J. L. Gressitt.

SOLOMON IS.: 1 ♂, 1 ♀, Guadalcanal, Tenaru B, 25 m, 15.IX.1957, J. L. Gressitt.

17. **Aneurus (Aneurillus) cheesmanae** Kormilev, new emendation

Aneurus cheesmani Kormilev, 1967, *Eos* **42**: 471, fig. 4–5.

NW NEW GUINEA: 1 ♂, Biak I., Mangrowawa, 50–100 m, 31.V.1959, T. C. Maa. This specimen is slightly smaller than specimens from New Caledonia (3.60 mm), but it belongs to the same species.

KEY TO ANEURILLUS SPECIES

1. Spiracles VI ventral, remote from border; large species, over 5.0 mm (New Guinea, New Ireland) ..... **superbus** Kormilev, 1967
   Spiracles VI lateral; smaller species, less than 5.0 mm 2
2. Abdomen distinctly wider than pronotum, ratio width of pronotum: width of abdomen as 70: 100 (New Guinea) ..... **cetratus** Bergroth, 1914
   Abdomen narrower, ratio of width of pronotum to width of abdomen as 77–85: 100 3
3. Abdomen with subparallel sides in both sexes, ratio of width of pronotum to width of abdomen as 85: 100 (New Caledonia) ..... **cheesmanae** Kormilev, 1967
   Abdomen with convex sides; ratio of width of pronotum to width of abdomen at most as 80: 100 4
4. Postocular border sinuate and with a minute tubercle posteriorly; hypopygium large with parallel sides, more than 1/2 as wide as head (8: 13) (Sumatra) ..... **longicollis** Bloete, 1965
   Postocular border straight or slightly convex, and without minute tubercle; hypopygium small, its apical 1/2 narrower than basal, less than 1/2 as wide as head (6: 13) 5
5. Antennae longer, more than 2× as long as head (29.5: 12.5); paratergites (♀) produced as far as segment IX (New Guinea) ..... **papuasicus** Kormilev, 1967
   Antennae shorter, only 2× as long as head (26: 13); paratergites (♀) produced slightly beyond segment IX (Sumatra) ..... **jacobsoni** Bloete, 1965

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