

A new species of the genus Aradus F., 1803, from Alaska
(Insecta: Heteroptera)

by

Nicholas A. KORMILEV and Ernst HEISS *)

Eine neue Art der Gattung Aradus F., 1803, aus Alaska
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S y n o p s i s : *Aradus alaskanus* n. sp. aus dem Norden Alaskas ist eine der kleinsten Arten dieser Gattung. Sie erinnert habituell sowohl an den nearktischen *A. evermanni* VAN DUZEE, 1920, als auch an die ostpalaearktischen *A. angularis* J. SAHLBERG, 1886, und *A. dissors* KIRITSHENKO, 1913. Durch die langen und dünnen Fühler, das sehr quergestreckte Pronotum und Unterschiede in den männlichen Genitalien ist *A. alaskanus* n. sp. jedoch gut differenziert.

Subfamily Aradinae

Genus Aradus FABRICIUS, 1803

Aradus alaskanus n. sp. (Fig. 1 + 2, Foto 1 - 4)

Male elongate, with subparallel sides; antennae long and thin.

Head shorter than its maximum width across eyes (16 : 17,5); anterior process with parallel sides, rounded anteriorly, reaching nearly basal 1/5 of antennal segment II. Antenniferous tubercles acute, with parallel outer borders and without lateral tooth. Eyes almost globose, strongly protruding. Postocular boarders straight, strongly converging. Preocular tubercles small, acute; postocular rudimentary. Vertex with 2 (1 + 1) slightly oblique, shallow depressions, connected posteriorly by a thin sulcus; white lines straight, converging and prominent. Antennae 1,8 x as long as width of head across eyes; Antennal segment II evenly tapering toward base, as long as width of head between

*) Addresses of the authors: N.A. Kormilev, Ing. Agr., Research Associate at the Bishop Museum, Honolulu, Hawaii, 84-05, 89th Street, Woodhaven, N.Y., 11421 USA.
Dipl. Ing. Ernst Heiss, Josef-Schrafflstr. 2a, A-6020 Innsbruck, Austria.

eyes + one eye; relative length of antennal segments I to IV are: 3,5 : 14 : 7 : 7. Labium almost reaching hind border of mesosternum.

Pronotum less than 0,5 as long as its maximum width at 2/3 of its length (11 : 26,5). Anterior border raised and truncate; anterior angles produced forward, rounded at tips; lateral borders reflexed, firstly evenly sinuate, then evenly arcuate and very finely serrate; hind border truncate medially, roundly produced laterally. Fore disc with 2 (1 + 1), hind disc 6 (3 + 3) parallel carinae. Fore disc depressed medially and with 2 (1 + 1) round callous spots laterad of carinae and further laterad with 2 (1 + 1) smaller, round callous spots; granulate elsewhere on disc. Hind disc transversely rugose between carinae.

Scutellum triangular, longer than its basal width (14 : 11); lateral borders moderately reflexed and slightly convex; tip narrowly rounded. Disc raised and finely punctured at basal 1/3; transversely rugose on apical 2/3.

Hemelytra as long as abdomen and wider at the base. Basolateral borders of corium reflexed; exterior borders of corium and veins finely and sparsely granulate; corium and exocorium slightly hyaline, membrane very finely wrinkled, translucent. Transverse veinlets of corium scarce.

Abdomen (measured from below) longer than its maximum width (45 : 26); PE-angles (postero-exterior) of connexiva not protruding; PE VII acute, reaching spiracles VIII; genital capsule large; sternum VI as long medially as sternum VII.

Legs long and thin; femora finely granulate, tibiae with short, sparse bristles.

Genital capsule globose with dorsal external opening. Parandria slender and curved upwards, tip rounded with long setae. Parameres pointed, the basis with a spoon-like outgrowing dorsally. Tergite IX bipartite, rudimentary.

Collar: (specimen slightly immature) general color of body reddish brown to sandy brown, partly with bronze tinge; membrane light bronze; antennae yellow brown, segment III whitish at tip. IV ferruginous; legs and labium yellow brown.

Total length 3,35 mm; width of pronotum 1,06 mm; length of antennae 1,26 mm.

Holotype ♂, Alaska, Circle, 7.VIII.1952, lg. Gayden, in coll. Heiss.

A. alaskanus n. sp. is one of the smallest species of this genus, it is related to *A. evermanni* VAN DUZEE, 1920, from California, but may be separated from it by: antennae much longer than length of pronotum + scutellum (equal or shorter in *A. evermanni*), pronotum more transverse, lateral borders more evenly sinuate and not serrate anteriorly, more evenly arcuate posteriorly, different parandria, parameres and shape of tergit IX. *A. alaskanus* n. sp. is also related to the eastpalaearctic species *A. angularis* J. SAHLBERG, 1886, and *A. dissors* KIRITSHENKO, 1913, but differing from them by smaller size, longer and thinner antennae and more transverse pronotum with smooth anterior borders. The male genitalia are very similar and the spoon-like outgrowing is also present, but much smaller than in *A. alaskanus* n. sp.

The Scanning Electron Microscope photographs were made by Univ.-Prof. Dr. J. Klima at Innsbruck University, for what we express him our sincere gratitude.

A b s t r a c t : *Aradus alaskanus* n. sp. is one of the smallest species of the genus and related to the nearctic *A. evermanni* VAN DUZEE, 1920, as well as to the east-palaearctic species *A. angularis* J. SAHLBERG, 1886, and *A. dissors* KIRITSHENKO, 1913. By its long and thin antennae, the transverse pronotum and differences in the male genital structures *A. alaskanus* n. sp. is well differentiated from them.

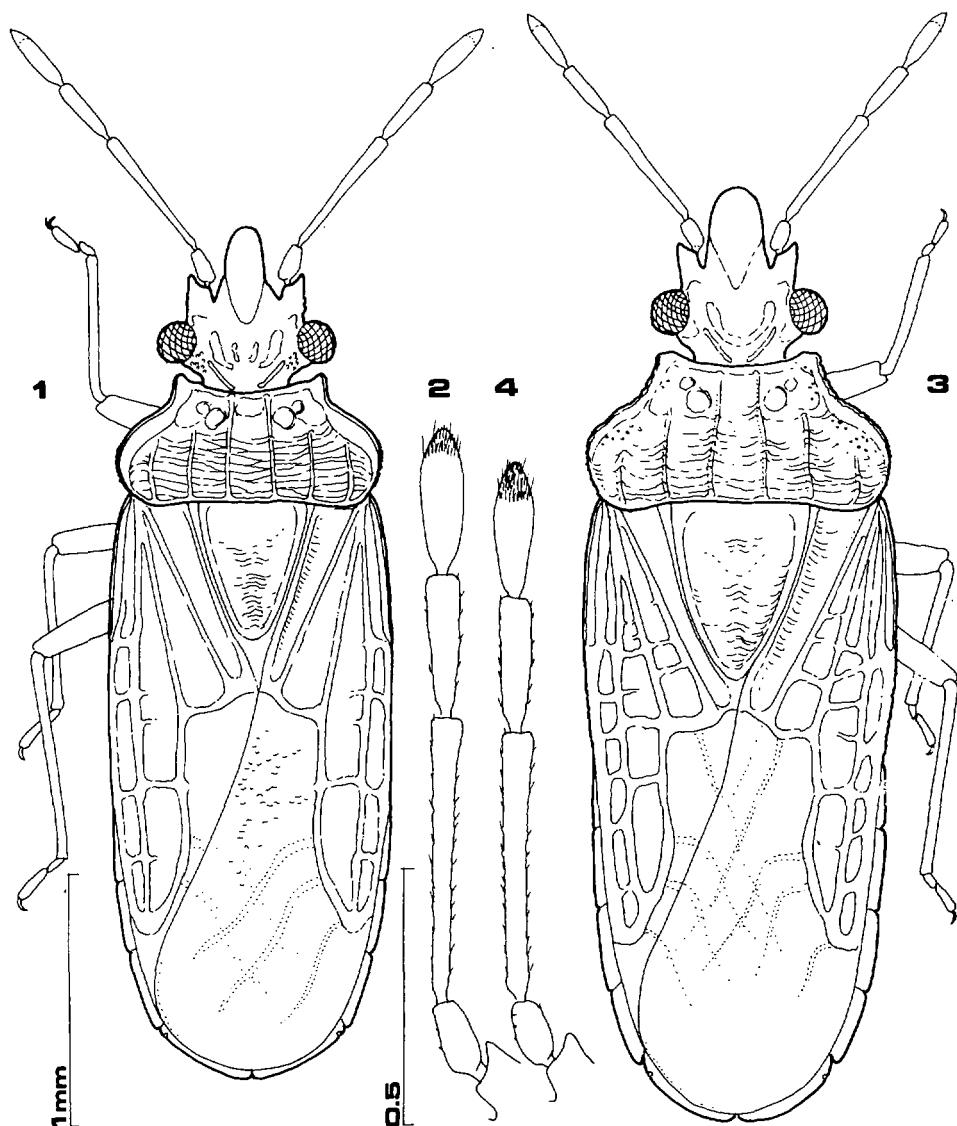
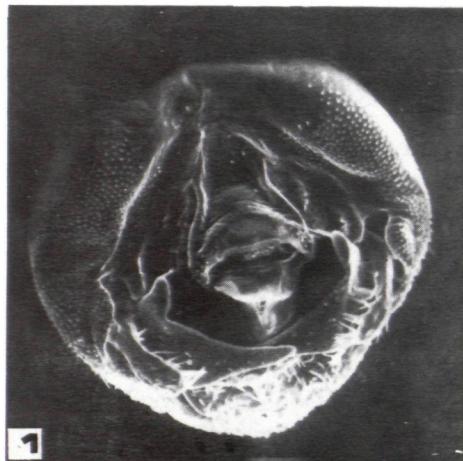
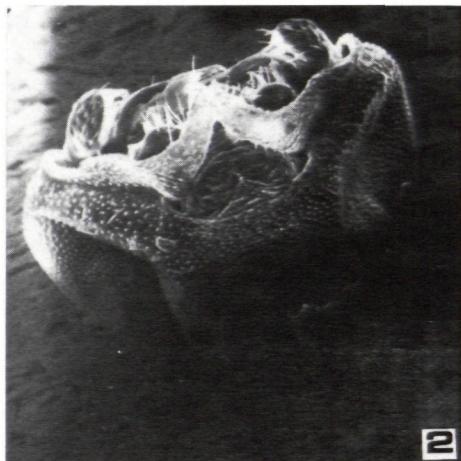


Fig. 1 + 2: *Aradus alaskanus* n. sp., ♂ Holotype; 1: dorsal; 2: right antenna.

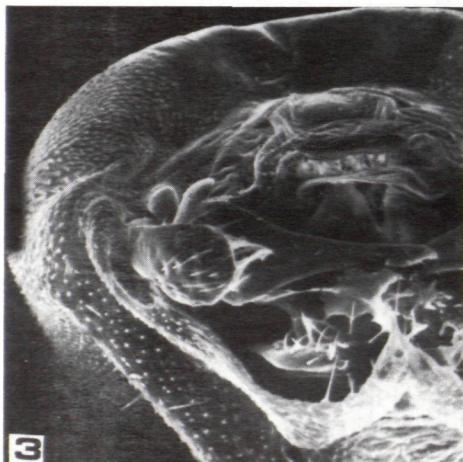
Fig. 3 + 4: *Aradus evermanni* V.D. from Chiric Mt. Ar., male; 3: dorsal; 4: right antenna.



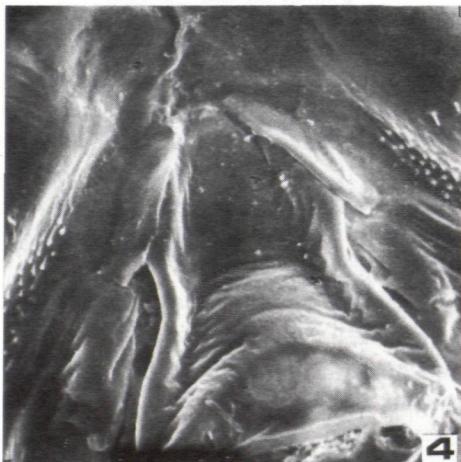
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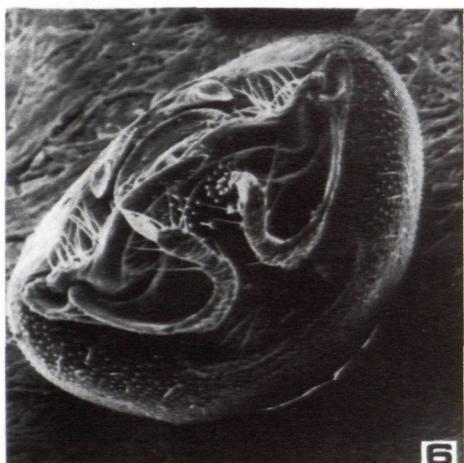


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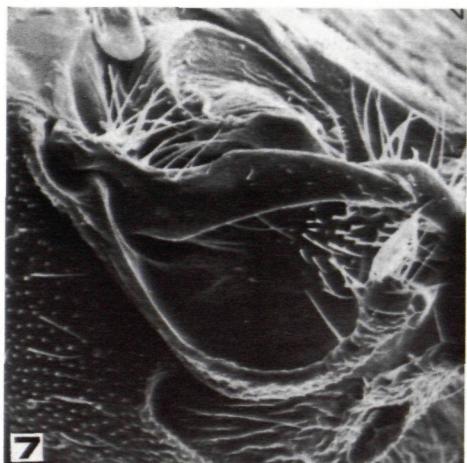
Fotos 1 - 4: *Aradus alaskanus* n. sp., ♂ Holotype; 1: genital capsule dorsal; 2: dto. caudal; 3: paramere with spoon-like outgrowing at base; 4: tergit IX.



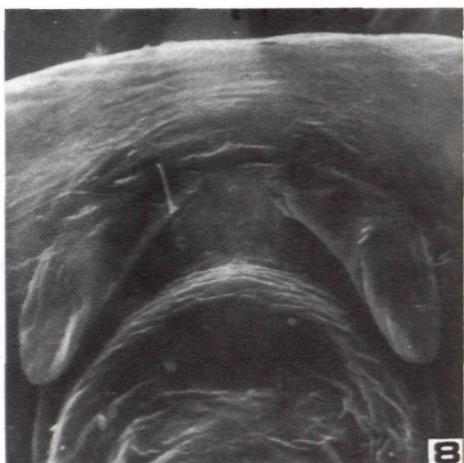
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8

Fotos 5 - 8: *Aradus evermanni*, male; 5: genital capsule dorsal; 6: dto. caudal; 7: right paramere and parandrium; 8: tergit IX.

References:

- KIRITSHENKO, A.N. (1913): Faune de la Russie et des pays limitrophes, Insectes Hémiptères, Dysodiidae et Aradidae. – St. Petersbourg, 6(1): 1 - 301, 2 pl.
- SAHLBERG, J. (1886): En ny art af Hemipter-slaget *Aradus* fran Ryska Karelen. – Med. Soc. Fauna-Flora Fenn., 13: 153 - 155.
- VAN DUZEE, E.P. (1920): New Hemipterous insects of the genera *Aradus*, *Phytocoris* and *Camp-tobrochys*. – Proc. Calif. Acad. Sci., 9(4): 331 - 339.

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Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Berichte des naturwissenschaftlichen-medizinischen Verein Innsbruck](#)

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

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