On the Re-erection of the Tribe Stenoscelideini SCHAEFER (Heteroptera, Coreidae, Coreinae)[1]

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Abstract: The Tribe Stenoscelideini SCHAEFER, containing the genera *Nyttum* SPINOLA, *Placoscelis* STÅL, and *Stenoscelidea* WESTWOOD, is re-erected from synonymy under the Tribe Acanthocephalini on the basis of shared synapomorphies, most notably a sclerotized ring occurring at the base of the spermatheca in all species studied.

Key words: Coreidae, *Nyttum*, *Placoscelis*, *Stenoscelidea*, Stenoscelideini.

Introduction

In 1968, Schaefer discussed the tribal position of *Stenoscelidea* WESTWOOD within the Family Coreidae. He presented the reasons of others for placing this genus either in the Tribe Acanthocephalini or the Anisoscelini, and, on the basis of mostly abdominal and genitalic characters, proposed a new tribe for that single genus – Stenoscelideini. The genus *Stenoscelidea* had formerly been included in his *Acanthocephala*-group (SCHAEFER 1965).

BRAILOVSKY (1983) described four new species in the genus *Stenoscelidea*, stating that all were morphologically associated with *Stenoscelidea aenescens* STÅL; and all five of these species were from northern (= Mexico) and Central America. No key to the species was presented. Brailovsky did not elaborate on the genus, other than listing the following characteristics shared by these five northern members: posterior tibia well foliated, elevated tylus, postocular tubercle evident, and metallic blue or green coloring which at times is replaced with matte tones.

In the same paper, BRAILOVSKY (1983) argued for the retention of the genus in the Tribe Acanthocephalini, thus synonymizing Stenoscelideini with Acanthocephalini. BRAILOVSKY (1983) gave the following four statements for doing so (translated and paraphrased from BRAILOVSKY 1983):

1) SCHAEFER (1968) did not consider the type species of the genus, *S. albovaria* WESTWOOD, in his new tribal grouping.

2) SCHAEFER (1968) only examined one species, *S. aenescens*, which, by his criteria (sic), exemplifies a morphological extreme of the genus *Stenoscelidea*.

3) Brailovsky believed that *S. aenescens* should probably be placed in another generic category, given that the external dilation of the tibia is very distinct from that present in the South American species of the genus *Stenoscelidea* „sensu-strictu". This placement remains open until all the species can be examined and grouped.

4) The four new species described in his article and distributed in North and Central America, are all morphologically associated with *S. aenescens*.

In part Brailovsky was right: Schaefer did only examine one species, he also did not examine all of the genera of Anisoscelini and Acanthocephalini. However, among these rather ambiguous reasons, Brailovsky does not discuss the characters Schaefer used in erecting his new tribe.

[1]This paper was submitted in honor of Ernst Heiss in celebration of his 70th birthday.

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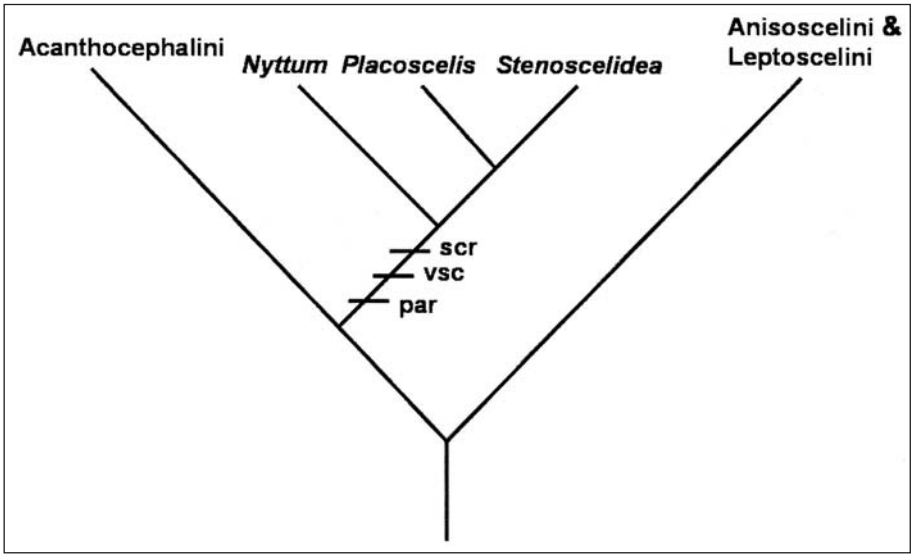

Fig. 1: Consensus cladogram modified from PACKAUSKAS (1994), showing monophyly of *Nyttum*, *Placoscelis*, *Stenoscelidea*, ssr = spermathecal sclerotized ring, ae3 = aedeagus, w/vesica consisting of 3 loose coils, par = paramere w/subapical groove extending to base.

PACKAUSKAS (1994) tested SCHAEFER's (1965) hypothesis that the Tribes Acanthocephalini and Leptoscelini (forming Schaefer's *Acanthocephala*-Group A) are more closely related to each other than either is to the Tribe Anisoscelini (Schaefer's *Acanthocephala*-Group B). PACKAUSKAS (1994) examined 119 characters in 141 species from 28 genera across all three tribes and produced a strict consensus cladogram from 78 parsimonious trees produced using PAUP (SWOFFORD 1991). This consensus cladogram basically showed that among all trees the Tribes Anisoscelini and Leptoscelini are more closely related to each other than either is to the Tribe Acanthocephalini, but that all three form a distinct New World clade. Within the clade Acanthocephalini (sensu lato), there are two sub clades, a large one containing 12 genera (Acanthocephalini sensu stricto), and a smaller clade of three genera including *Stenoscelidea* (Fig. 1).

All three genera (including *Stenoscelidea*) of the smaller clade have an apomorphy: a small sclerotized ring embedded at the union of the spermatheca and the genital chamber (Fig. 2, scr). The other two genera are *Nyttum* SPINOLA and *Placoscelis* STÅL, and the sclerotized ring is a synapomorphy grouping these three genera. The paramere in these three genera is also similar and differs from the parameres of the rest of the genera in Acanthocephalini (Fig. 3). Additionally, all three genera have ventral black maculae.

On the basis of these shared apomorphies, I re-erect the tribe Stenoscelideini SCHAEFER, now containing three genera: *Stenoscelidea*, *Placoscelis*, and *Nyttum*.

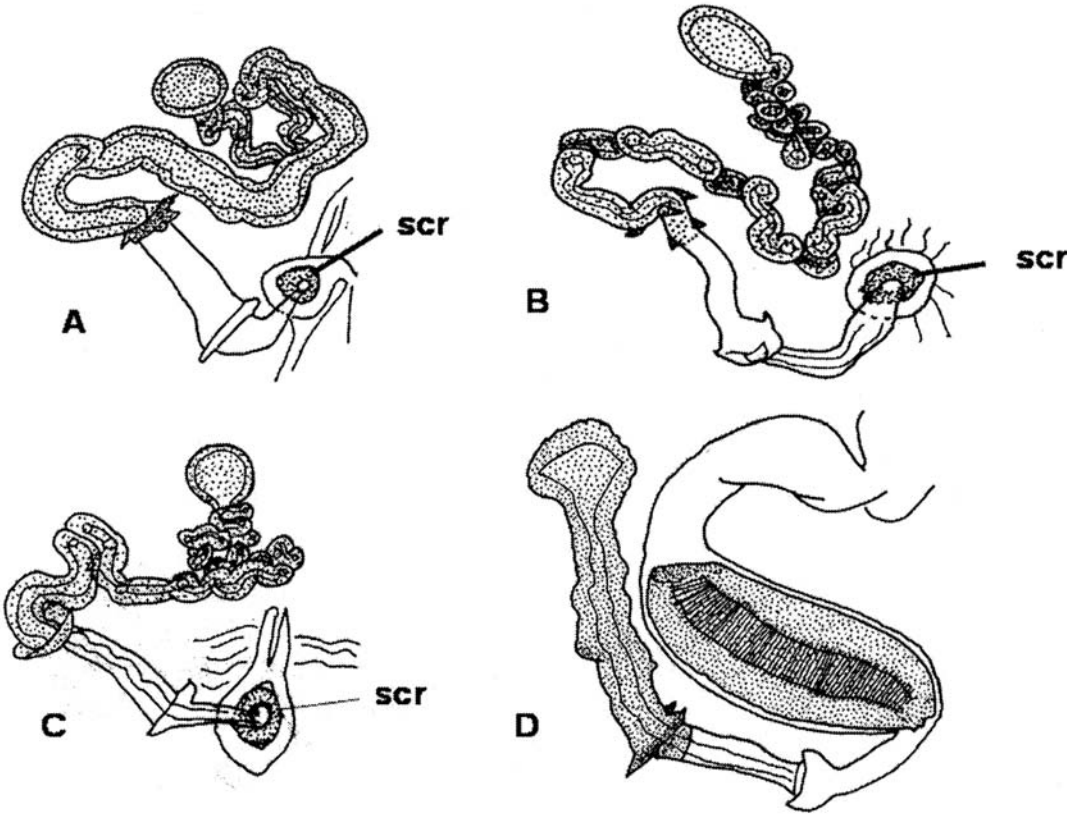

Fig. 2: Spermathecae: (**A**) *Nyttum punctatum* (**B**) *Placoscelis plebeja* (**C**) *Stenoscelidea albovaria* (**D**) *Acanthocephala terminalis.* scr = sclerotized ring.

Redescription of the Tribe Stenoscelideini Schaefer

Posttylar sulcus single or double (with internal ridge). Tylus a short tubercle raised above deflexed juga. Ratio of head length from imaginary line drawn through anterior margins of eyes to that behind line less than 0.7. Distance between antenniferous tubercles less than width of one tubercle. Antennal segment I longer than head, shortest antennal segment I or III, IV longest, never longer than II + III together. Ratio of antennal segment IV to III 1.5-2.0. Degree of pronotal rise, anterior to posterior as seen from side, 30-50°. Callar region of pronotum slightly raised. Humeral angles of pronotum acute to obtusely rounded, posterior angles obtusely rounded. Longitudinal laevigate (occasionally raised, impunctate) line on pronotum. Rostral segment III shortest, longest two segments sometimes subequal (I = II, I = IV, II = IV). Rostrum reaching mesosternum or anterior of metasternum. Metathoracic scent gland auricles separated, with distinct bridge between them. Spiracles of abdominal segment IV to VII always closest to lateral edge, and sometimes closer to base or nearly median between base and apex of each segment. All species black-spotted ventrally, usually brown to tan dorsally (one species metallic-blue). Many species wider across the abdomen than across humeri.

Synapomorphies: Spermathecae with sclerotized ring at juncture with genital chamber and with distinct proximal flange (at least teeth); internal subapical groove of paramere extending nearly to base, paramere apically toothed (shared with Acanthocephalini); tylus extended above and separated from juga as short tubercle (more spinelike in members of Acanthocephalini, Fig. 4); abdominal spiracles closest to lateral edge; aedeagal conjunctiva with fewer than four membranous lobes ventrally, and fewer than three lobes dorsoapically; vesica forming three much widened, coils, unlike the narrower vesica of the Anisoscelini and lacking an apical loose fourth coil as occurs in the Acanthocephalini (Fig. 5).

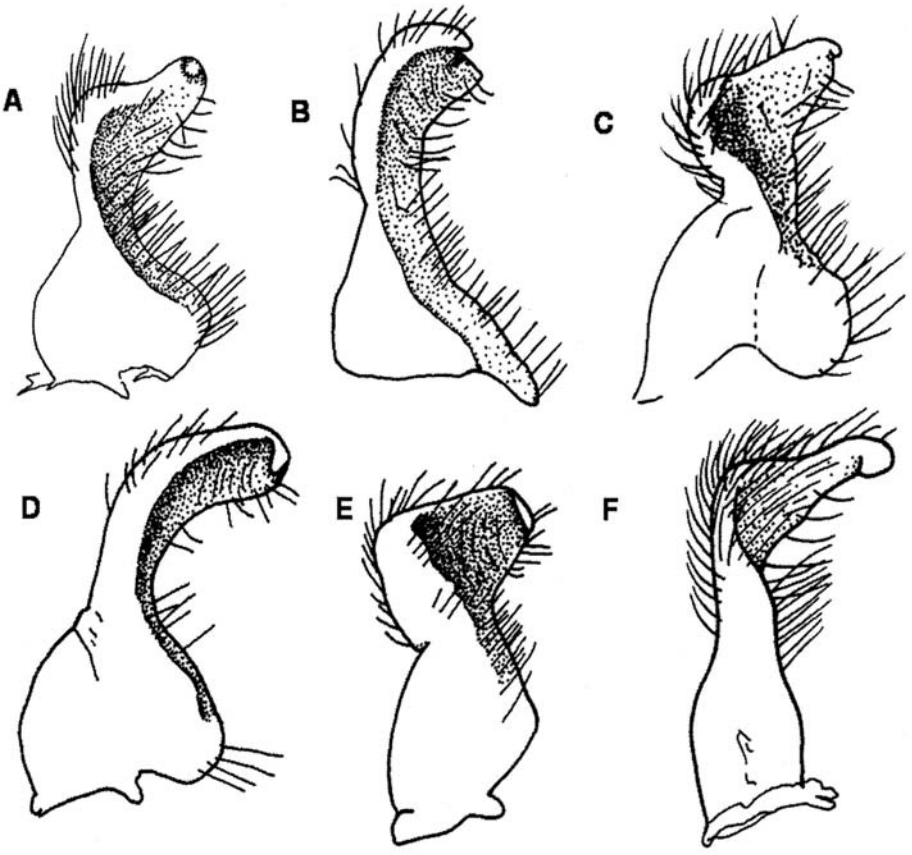

Fig. 3: Parameres. (**A**) *Nyttum punctatum* (**B**) *Placoscelis rustica* (**C**) *Stenoscelidea prolixa* (**D**) *Placoscelis plebeja* (**E**) *Placoscelis mirifica* (**F**) *Acanthocephala declivis*.

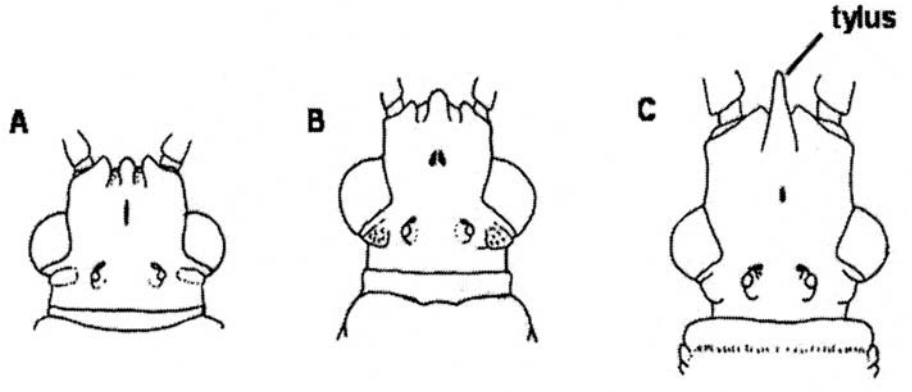

Fig. 4: Heads. (**A**) *Nyttum punctatum* (Stenoscelideini) (**B**) *Stenoscelidea aenescens* (Stenoscelideini) (**C**) *Acanthocephala femorata* (Acanthocephalini)

Key to the genera of the Tribe Stenoscelideini Schaefer

1 Hind tibiae simple . . . . . *Nyttum*

– Hind tibiae expanded 2

2 Hind tibial expansion sinuate, emarginated . . . . . *Stenoscelidea*

– Hind tibial expansion straight, not sinuate, nor emarginated . . . . . *Placoscelis*

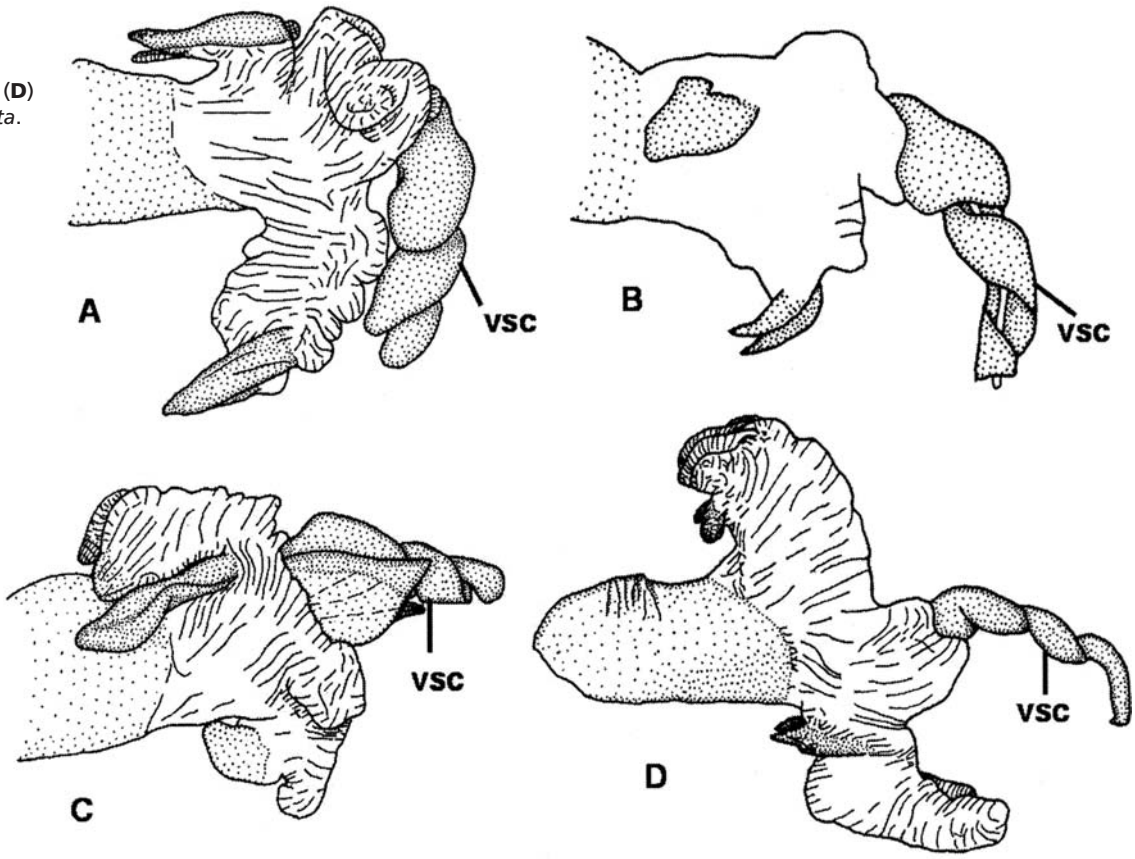

Fig. 5: Aedeagi. (**A**) *Placoscelis mirifica* (**B**) *Nyttum punctatum* (**C**) *Stenoscelidea aenescens* (**D**) *Acanthocephala femorata*. vsc = vesica.

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Zusammenfassung

Die Tribus Stenoscelideini SCHAEFER, mit den Gattungen *Nyttum* SPINOLA, *Placoscelis* STÅL und *Stenoscelidea* WESTWOOD, wird aus der Synonymie mit der Tribus Acanthocephalini erhoben und auf Grundlage gemeinsamer Synapomorphien, vor allem eines sklerotisierten Ringes an der Basis der Spermatheka bei allen untersuchten Arten, wiederhergestellt.

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