# A Ventromedian Cervical Sclerite of Mosquito Larvae (Diptera: Culicidae)[1]

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During studies on the subgenera of *Aedes* Meigen, a small pigmented plate was discovered on the ventral median region of the fourth stage larval cervical membrane. This plate, the *ventromedian cervical sclerite (VmCS)*, is variable in pigmentation and development (Fig. 1). In some species and subgenera of *Aedes* (e.g., *Edwardsaedes* Belkin, *Neomelaniconion* Newstead, *Aedes* Meigen and many *Aedimorphus* Theobald) the sclerite is fairly large and heavily pigmented. Species of the subgenus *Verrallina* Theobald have a small but heavily pigmented sclerite (see illustrations of Reinert 1974). This structure was also illustrated but not described for *Aedes (Stegomyia) aegypti* (Linnaeus) by Hochman and Reinert (1974). The ventromedian cervical sclerite has a fragmented appearance in a number of species of the subgenus *Ochlerotatus* Lynch Arribalzaga (e.g., *canadensis* (Theobald) and *excrucians* (Walker)) while other species of the subgenus have a well developed complete sclerite (e.g., *atropalpus* (Coquillett) and *sollicitans* (Walker)) and still others apparently lack the plate altogether (e.g., *atlanticus* Dyar and Knab and *dupreei* (Coquillett)).

Seventy-four species in 19 subgenera of *Aedes* examined possessed a ventromedian cervical sclerite. These species and subgenera are listed below. Generic and subgeneric abbreviations follow Reinert (1975).

*Ae. (Abr.) papago*

*Ae. (Aed.) cinereus*
*esoensis*

*Ae. (Adm.) alboscutellatus*
*caecus*
*domesticus*
*fowleri*
*haworthi*
*mediolineatus*
*natronius*
*oakleyi*
*orbitae*
*pallidostriatus*
*pampangensis*
*pipersalatus*
*quasiunivittatus*
*senyavinensis*
*stokesi*

1
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*Ae. (Adm.) syntheticus*
*vexans*

*Ae. (Ala.) brevitibia*

*Ae. (Azt.) ramirezi*

*Ae. (Dic.) adersi*
*franciscoi*
*whartoni*

*Ae. (Edw.) imprimens*

*Ae. (Fin.) banksi*
*formosensis*
*ganapathi*
*harveyi*
*hurlbuti*
*inermis*
*prominens*
*sherki*
*togoi*

*Ae. (Gym.) mediovittatus*

*Ae. (How.) sexlineatus*

*Ae. (Lor.) fumidus*

*Ae. (Muc.) laniger*
*scatophagoides*

*Ae. (Neo.) lineatopennis*

*Ae. (Och.) abserratus*
*atropalpus*

*Ae. (Och.) canadensis*
*communis*
*diantaeus*
*excrucians*
*fulvus pallens*
*intrudens*
*mitchellae*
*rusticus*
*sollicitans*
*squamiger*
*taeniorhynchus*
*vigilax*
*vittiger*

*Ae. (Par.) ostentatio*

*Ae. (Pro.) triseriatus*

*Ae. (Sku.) pembaensis*

*Ae. (Stg.) aegypti*
*quasiscutellaris*
*vittatus*

*Ae. (Ver.) adustus*
*butleri*
*carmenti*
*cyrtolabis*
*gibbosus*
*indicus*
*leicesteri*
*nobukonis*
*torosus*
*uncus*
*vallistris*
*yusafi*

Twelve species in 4 genera other than *Aedes* were also examined and were found to possess a ventromedian cervical sclerite.

*Cx. (Cux.) restuans*

*Cx. (Ncx.) territans*

*Hg. (Hag.) janthinomys*
*lucifer*
*mesodentatus*
*regalis*

*Hz. (Hez.) aureochaeta*
*persimilis*
*proxima*
*reidi*
*scintillans*

*Op. fuscus*

A ventromedian cervical sclerite was not found in the following species.

*Ae. (Ayu.) griffithi*
*peytoni*

*Ae. (Can.) masculinus*

*Ae. (Och.) atlanticus*
*dupreei*

*An. (Ano.) crucians*
*punctipennis*
*quadrimaculatus*

*Cs. (Cus.) inornata*

*Cx. (Cux.) nigripalpus*
*peus*

*De. mathesoni*
*pseudes*

*Er. chrysogaster*

*Or. alba*
*fascipes*
*signifera*

*Ps. (Jan.) ferox*

*Ps. (Pso.) ciliata*
*howardii*

*Tx. (Lyn.) rutilus*

*Ud. argyrurus*

*Ur. (Ura.) sapphirina*

*Wy. (Wyo.) mitchellii*
*smithii*

This study was limited in scope; however, as additional species and genera are fully described and illustrated this sclerite may provide additional support for separating taxa.

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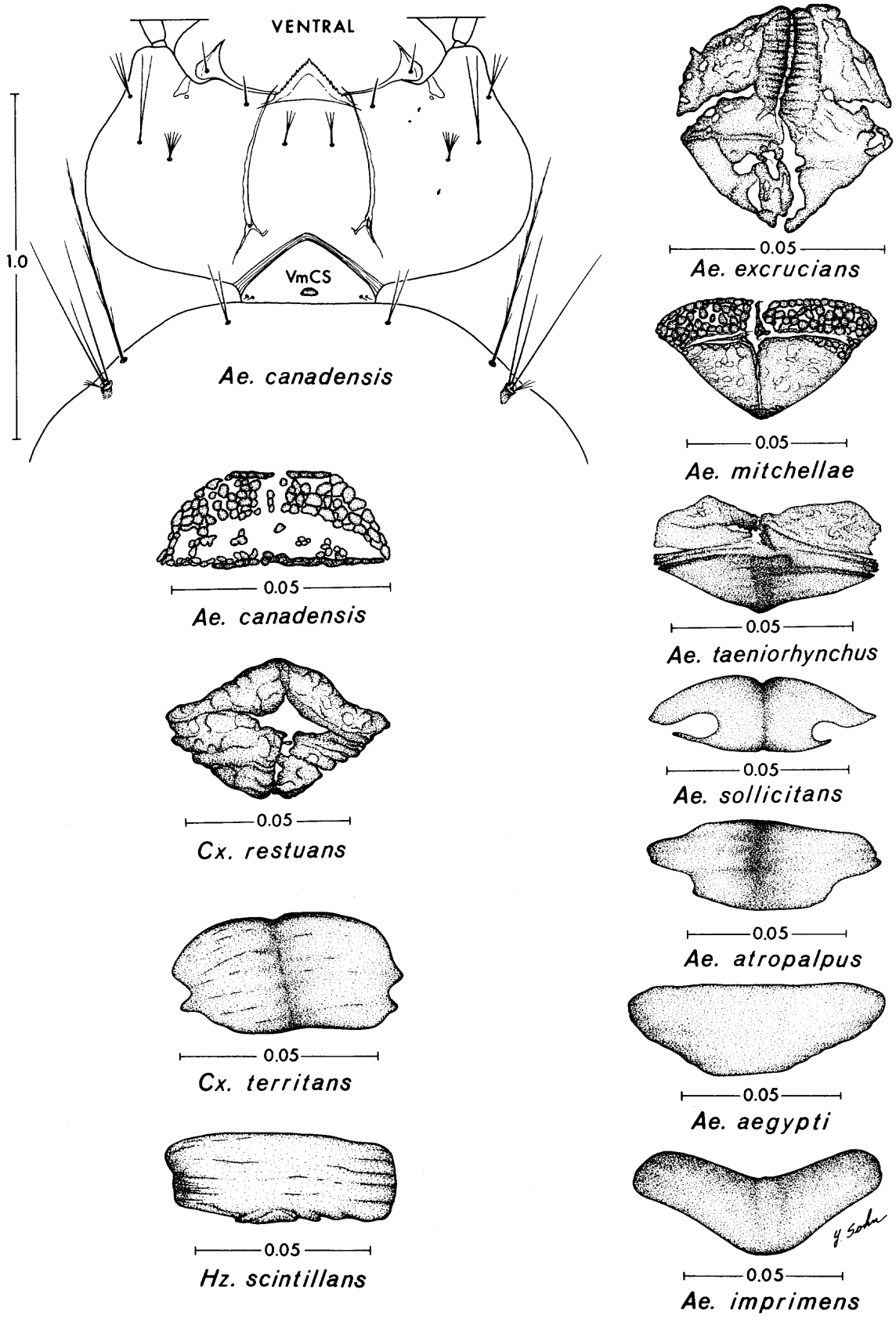
# Fig. 1


VENTRAL
1.0
VmCS
Ae. canadensis
0.05
Ae. canadensis
0.05
Cx. restuans
0.05
Cx. territans
0.05
Hz. scintillans
0.05
Ae. excrucians
0.05
Ae. mitchellae
0.05
Ae. taeniorhynchus
0.05
Ae. sollicitans
0.05
Ae. atropalpus
0.05
Ae. aegypti
0.05
Ae. imprimens