

The Use of Thoracic Setae as a Taxonomic Tool and as an Aid  
in Establishing Phylogenetic Relationships in Adult  
Female Aedes Mosquitoes of North America

Part I

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Introduction

The thoracic key characters presently used in species identification of adult female mosquitoes involve primarily the color and arrangement of scale patches on the tergum and pleuron. The colors and patterns of these scales often become obliterated or modified as the mosquito becomes "flightworn." The scales also are easily rubbed off in the collecting and handling of specimens. The loss of these scales often renders it difficult or impossible to identify the species to which an individual specimen belongs.

It is well known to systematic entomologists that setae are of considerable importance in the taxonomy of many insect groups. In some insects the setal patterns are useful in the identification to genus and species of the immature and adult stages. In the mosquitoes the setae are used as diagnostic characters in the identification of the adults to genus and the larvae to genus and species. In adult mosquitoes, however, the number and arrangement of setae have been used only to a very limited extent in species determination. There has been a need for a comprehensive study of the setal patterns on the thorax of adult female mosquitoes to determine their usefulness as primary or supplementary characters. If such a study proved setae to be of value in species identification, their loss in "flightworn" or otherwise damaged specimens would not seriously impair their diagnostic value, as the setal follicles still remain to indicate the position of any lost setae.

Another important problem concerns the phylogenetic relationships among the genera and species of mosquitoes. The present phylogenetic groupings are based primarily upon studies of female scale patterns

and/or the male genitalia. Setal numbers and patterns represent inherited characters which should make an additional contribution to our knowledge of mosquito phylogeny.

This study of thoracic setae of the North American species of the genus Aedes was undertaken with the following objectives: (1) provide information concerning the numbers of setae found in each thoracic setal group, and note any differences in the arrangement of setae within the various setal groups; (2) make a comparison of the setal patterns among the eight subgenera comprising the genus Aedes in North America; (3) make a comparison of the setal patterns within each subgenus, with a major emphasis on Ochlerotatus inasmuch as it has the largest number of groups, subgroups and species in North America; (4) evaluate the taxonomic importance of these setal patterns in species identification; (5) evaluate the phylogenetic importance of the setal patterns; and (6) present original drawings accurately showing the setal areas and arrangement of setae in these areas.

### Review of the Literature

A review of the literature showed a paucity of published studies concerning the use of the number and arrangement of thoracic setae in the systematics of Aedes mosquitoes. Early workers, such as Dyar (1928), often referred to certain Aedes species (i.e., Aedes nigripes) as being "hairy" or having a thorax covered with long setae but no attempt was made to relate these setae with a particular sclerite.

Edwards (1932) used the number of lower mesepimeral setae in his description of the subgenera of the genus Aedes and also in the description of his groups within each subgenus. Komp (1937) attempted to clarify the nomenclature of the thoracic sclerites and their setae, but made no attempt to relate this information to species or phylogeny. Aitken (1941) created a new subgenus Kompia, and described a new species, Aedes purpureipes, for which the most distinctive character was the absence of postspiracular setae. Smith (1952) described the nominal Aedes pseudodiantaeus (now a synonym of Aedes decticus Dyar) and noted that it could be separated from Aedes diantaeus by a reduced number of sternopleural setae. Vockeroth (1954) observed that Aedes impiger (Walker) could be separated from all other black-legged Aedes species except Aedes nigripes (Zetterstedt) by the postpronotal setae which in these two species were scattered over most of the post-pronotum instead of being confined to a single or double row along the posterior margin. Beckel (1954) reported that Aedes communis (DeGeer) could be separated from Aedes hexodontus Dyar by a smaller number of setae on the anterolateral and the posterolateral regions of the mesonotum. Belkin and McDonald (1957) reported that Aedes varipalpus (Coquillett) could be distinguished from the other members of the "varipalpus" complex by the presence of a unique group of setae on the subspiracular area. Lunt and Nielsen (1958) found differences in the setal patterns on the mesonotum and scutellum of the six genera of mosquitoes in Utah. Lunt (1959a) reported on the value of thoracic setal patterns to separate females of Aedes communis (DeGeer), Aedes impiger (Walker), and Aedes intrudens Dyar. In addition Lunt (1959b) made a comparative study

of the thoracic setal patterns of the black-legged Aedes mosquitoes in Utah and found significant differences among the species. Lunt and Nielsen (1968) published examples of setal characteristics that could be used to separate a number of closely related species of Aedes. They also suggested that setal characteristics might be useful in studying species relationships.

Since Matheson's Handbook of the Mosquitoes of North America (1944) many keys to North American Aedes have appeared (most notably Carpenter and LaCasse, 1955). Most of these are regional publications and no attempt will be made to list all of them here. Most of them have incorporated the known reliable setal characters of the thorax.

Knight and Laffoon (1970) have recently prepared a comprehensive glossary of the adult mosquito thorax. This valuable illustrated reference lists all of the sclerites and setal groups of the thorax including several setal groups not considered in our study.

Rohlf (1963a, 1963b) and Steward (1968) used thoracic setal characters in attempting to determine a natural classification in Aedes mosquitoes by numerical taxonomic methods. The setae, however, represented only a very small fraction of the total characters used.

We are not aware of any previous published study which has used thoracic setae exclusively as an aid in clarifying mosquito phylogeny.

#### Materials and Methods

Adult female mosquitoes representing sixty-three species of the genus Aedes of North America (north of Mexico) were used as study material. They were collected from thirty-five states in the United States and eight provinces or territories in Canada. About half of the specimens were taken from the collection in the entomology research museum at the University of Utah; the rest were kindly supplied on loan or on an exchange basis by the persons listed in the acknowledgements. A list of these species and the localities from which they were collected is contained in Appendix I.

Counts were made on the number of setal follicles present rather than the number of setae present because of the chance that some setae may have been lost during collection or handling of the specimens. Even if the setae are missing, the follicles are still present.

In order to study the setal follicles on the thorax to the best advantage, the head, abdomen, wings and legs were removed from each specimen. For reference purposes these parts were kept in pill boxes with collection data. The thoraces were first partially bleached in porcelain spot plates containing 10% potassium hydroxide (KOH), then agitated in warm water to remove the KOH and prevent further bleaching, and finally stored in vials containing 70% ethyl alcohol. The bleaching process was accomplished in 1 to 4 hours by keeping the KOH warm from the heat of a 100 watt light bulb kept approximately 2 inches above the spot plate. All of the specimens from the same locality were stored together

in the same vial, and as each specimen was studied it was numbered and stored in a glass xylocain hydrochloride cartridge containing 70% alcohol.

An 80X stereoscopic microscope with substage lighting was used to examine and count the thoracic setal follicles for each specimen. Substage lighting was used because light reflected up through the specimen made the follicles easier to see than when a direct light was used to illuminate the specimen from above.

Each specimen was studied by placing the thorax in a spot slide containing glycerine. The viscosity of the glycerine was such that movement of the specimen was limited while follicle counts were being taken. A fine, hooked teasing needle was used for manipulation of the specimen.

Counts were made of all the setae on the left pleuron, the mesonotum, and the scutellum. The pleural setae studied were the anterior pronotal, posterior pronotal, propleural, postspiracular, subspiracular, prealar, mesepimeral (upper and lower), sternopleural and the probasisternal. The mesonotal setae studied were the posterolateral, anterolateral, acrostichal, a special portion of the acrostichal referred to as the "v" group by Lunt and Nielsen (1958), and the dorsocentral. Figures 1, 2 and 3 show the location of the above-mentioned setae on the different thoracic areas.

The thorax of each specimen was measured (in millimeters) to indicate size differences. This measurement was taken from the anterior margin of the mesonotum to the posterior margin of the postnotum.

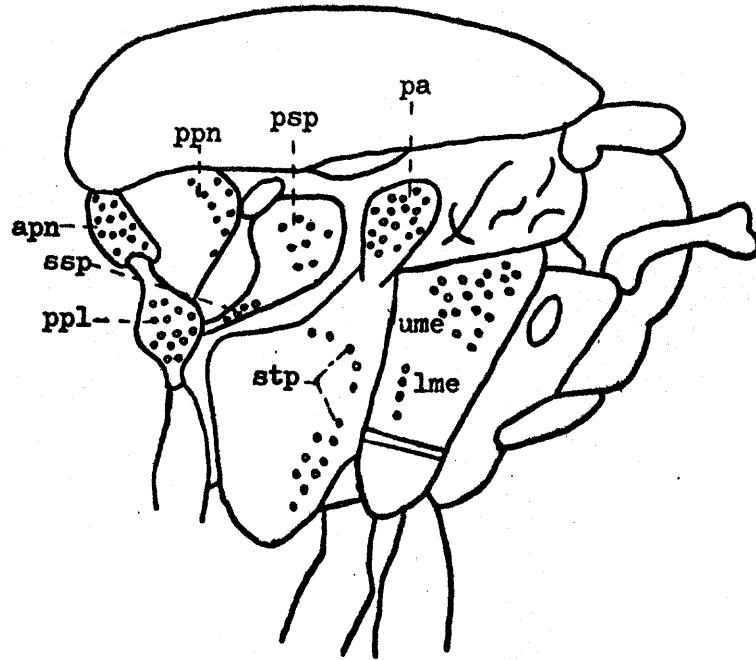


Fig. 1. Location of Setae on the Pleuron

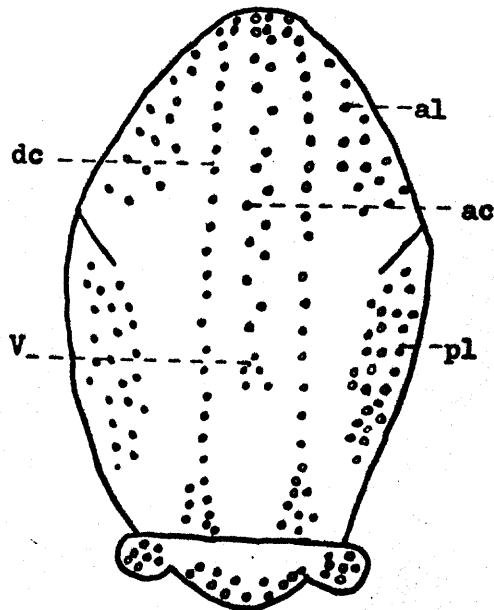


Fig. 2. Location of Setae on the Mesonotum and Scutellum

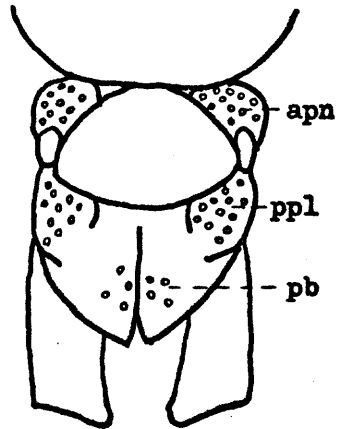


Fig. 3. Anterior View of the Thorax

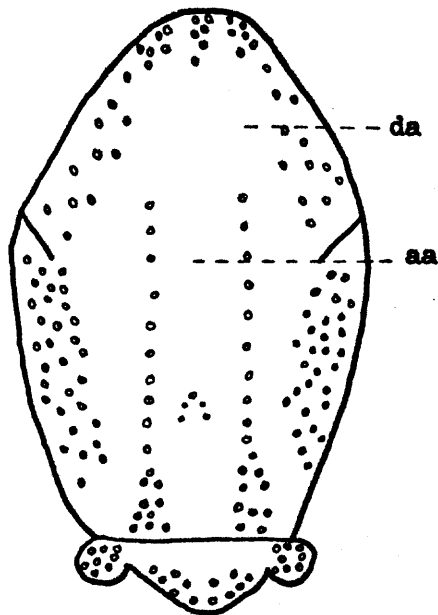


Fig. 4. Mesonotum and Scutellum

TABLE I. The Mean (M), Standard Deviation (S.D.), and Range (R) of Thoracic Setal Numbers; the Sample Size (N), Size Average (S.A.), and Size Range (S.R.)

SPECIES	MESONOTUM				SCUTELLUM	
	Postero- Lateral	Antero- Lateral	Acro- Stichal	"V" Group	Dorso- Central	
<b>SUBGENUS</b>						
<b>OCHLEROTATUS</b>						
<b>GROUP B</b>						
<b>A. ALOPONOTUM</b>						
N. 2	R. 59-61	12-13	21-23	6-7	35-36	32-43
S.R. 2.1-2.2						
<b>A. BARRI</b>						
N. 12	M. 68.8	12.1	25.9	7.8	40.6	51.0
S.A. 2.1	S.D. 5.6	2.0	3.4	1.2	4.5	4.8
S.R. 1.9-2.2	R. 60-75	10-15	20-29	6-9	35-48	45-62
<b>A. CANTATOR</b>						
N. 30	M. 77.3	14.1	27.7	8.1	48.2	58.7
S.A. 1.9	S.D. 13.3	4.5	4.7	2.0	7.3	12.7
S.R. 1.4-2.3	R. 34-98	8.24	20-36	6-15	33-64	33-83
<b>A. EXCRUCIANS</b>						
N. 30	M. 62.0	9.1	21.0	7.1	35.4	45.6
S.A. 2.0	S.D. 12.2	2.9	5.5	1.9	7.1	10.0
S.R. 1.8-2.3	R. 41-84	5-15	11-33	4-10	24-49	31-74
<b>A. FITCHII</b>						
N. 30	M. 62.0	11.1	22.7	8.0	38.6	47.2
S.A. 2.1	S.D. 9.4	3.4	3.7	1.9	4.7	7.8
S.R. 1.8-2.3	R. 41-83	5-19	15-31	4-14	29-46	32-68

## MESONOTUM (CONT.)

## MESONOTUM SCUTELLUM

SPECIES	MESONOTUM				Dorso-Central	SCUTELLUM
	Postero-Lateral	Antero-Lateral	Acro-Stichal	"V" Group		
<b>GROUP B (CONT.)</b>						
<u>A. FLAVESCENS</u>						
N. 30	M. 86.8	14.7	28.5	6.9	49.4	65.9
S.A. 2.3	S.D. 7.3	4.0	5.0	1.5	4.8	6.6
S.R. 2.1-2.6	R. 72-108	10-27	20-39	5.11	42-59	51-81
<u>A. GROSSECKI</u>						
N. 30	M. 68.1	9.1	11.5	7.4	34.6	50.2
S.A. 2.2	S.D. 12.5	4.0	4.5	1.2	7.0	7.8
S.R. 1.8-2.4	R. 51-85	6-18	9-25	6-9	27-50	40-69
<u>A. INCREPITUS</u>						
N. 30	M. 64.2	13.6	26.2	6.9	45.4	44.0
S.A. 1.9	S.D. 9.7	3.9	3.9	1.5	7.4	5.9
S.R. 1.6-2.1	R. 44-81	6-26	20-35	4-9	30-65	31-59
<u>A. RIPARIUS</u>						
N. 20	M. 75.3	11.9	22.4	6.3	37.3	52.4
S.A. 2.1	S.D. 10.2	4.1	4.0	1.5	2.4	6.7
S.R. 1.9-2.4	R. 60-95	6-20	16-32	4-10	33-42	38-61
<u>A. SQUAMIGER</u>						
N. 10	M. 63.1	19.2	24.3	7.6	47.5	40.8
S.A. 2.2	S.D. 4.5	2.8	3.0	1.3	5.7	5.9
S.R. 2.0-2.4	R. 56-71	17-23	20-31	6-10	39-56	31-48
<u>A. STIMULANS</u>						
N. 30	M. 73.3	13.7	28.5	7.3	48.0	50.3
S.A. 2.1	S.D. 11.6	3.6	5.6	1.8	7.8	7.6
S.R. 1.7-2.3	R. 40-90	8-21	18-43	5-13	33-67	32-66



## SCUTELLUM

## MESONOTUM

SPECIES	Postero- Lateral	Antero- Lateral	Acro- Stichal	"V" Group	Dorso- Central	SCUTELLUM	
						MESONOTUM	SCUTELLUM
<b>GROUP C</b>							
<u>A. FULVUS PALLENS</u>							
N. 15	M. 42.1	12.0	27.8	7.0	33.0	35.9	
S.A. 2.1	S.D. 4.8	2.7	2.4	1.2	1.3	3.0	
S.R. 2.0-2.2	R. 36-51	9-19	23-30	6-9	31-35	32-40	
<b>GROUP E</b>							
<u>A. CAMPESTRIS</u>							
N. 30	M. 82.0	16.5	10.7	6.3	46.7	61.3	
S.A. 2.1	S.D. 10.8	4.3	3.7	1.3	7.3	9.1	
S.R. 1.6-2.4	R. 54-102	12-23	7-22	4-8	29-59	47-85	
<u>A. CANADENSIS</u>							
N. 30	M. 55.3	6.3	20.5	7.1	33.9	35.9	
S.A. 1.8	S.D. 7.7	1.9	3.7	1.5	3.5	5.6	
S.R. 1.4-2.1	R. 37-71	3-10	10-27	5-11	26-40	21-47	
<u>A. DORSALIS</u>							
N. 30	M. 91.1	17.1	13.9	6.3	53.1	63.9	
S.A. 2.0	S.D. 14.1	5.7	6.1	1.6	8.7	10.0	
S.R. 1.3-2.3	R. 50-120	8-37	6-32	4-11	33-70	34-76	
<u>A. MELANIMON</u>							
N. 30	M. 76.4	12.1	10.6	5.7	41.8	54.5	
S.A. 1.8	S.D. 9.7	3.5	3.2	1.4	5.4	10.3	
S.R. 1.4-2.0	R. 60-95	6-17	6-20	3-9	29-52	34-78	

## MESONOTUM (CONT.)

## MESONOTUM

## SCUTELLUM

SPECIES	MESONOTUM				Dorso-Central
	Postero-Lateral	Antero-Lateral	Acro-Stichal	"V" Group	
<b>GROUP X</b>					
<u>A. MONTICOLA</u>					
N. 10	M. 67.3	10.5	26.1	6.1	39.8
S.A. 1.8	S.D. 4.8	2.3	4.2	0.8	3.3
S.R. 1.8	R. 60-76	6-12	19-33	5-7	36-46
<u>A. MUELLERI</u>					
N. 10	M. 53.0	7.4	23.7	5.7	37.2
S.A. 1.5	S.D. 5.4	2.0	5.3	0.6	4.0
S.R. 1.5	R. 45-60	5-11	15-31	4-6	31-41
<u>A. SIERRENSIS</u>					
N. 30	M. 40.4	8.0	14.0	6.8	33.6
S.A. 1.6	S.D. 6.9	2.0	1.8	1.0	4.0
S.R. 1.4-1.8	R. 30-62	5-12	11-19	5-10	26-42
<u>A. VARIPALPUS</u>					
N. 30	M. 45.0	8.2	16.7	6.1	29.2
S.A. 1.4	S.D. 7.3	1.5	2.3	0.9	3.4
S.R. 1.2-1.8	R. 35-61	6-11	13-22	4-8	24-36
<b>GROUP F</b>					
<u>A. ATLANTICUS</u>					
N. 30	M. 58.4	5.9	8.5	6.1	35.0
S.A. 1.7	S.D. 14.3	2.2	1.8	1.6	5.2
S.R. 1.4-2.0	R. 34-82	1-9	5-13	4-10	26-45
<u>A. DUPREEI</u>					
N. 10	M. 39.5	3.7	7.0	4.8	33.4
S.A. 1.2	S.D. 4.6	1.0	0.8	0.9	4.0
S.R. 1.1-1.3	R. 34-48	3-6	5-8	4-6	29-41
					27.7
					4.8
					22-35

## SCUTELLUM

## MESONOTUM

SPECIES	Postero- Lateral	Antero- Lateral	Acro- Stichal	"V" Group	Dorso- Central
<b>GROUP F (CONT.)</b>					
<b>A. INFIRMATUS</b>					
N. 14	M. 58.4	5.2	5.4	6.0	29.7
S.A. 1.6	S.D. 10.3	1.1	1.8	1.3	5.9
S.R. 1.3-1.8	R. 42-70	4-8	4-10	4-8	23-43
<b>A. SCAPULARIS</b>					
N. 10	M. 66.8	5.3	8.1	7.4	31.2
S.A. 1.6	S.D. 8.1	1.4	2.6	1.3	4.0
S.R. 1.5-1.8	R. 53-77	4-9	4-11	6-10	23-36
<b>A. THELCTER</b>					
N. 10	M. 66.5	9.7	9.1	7.4	34.0
S.A. 1.7	S.D. 5.5	1.6	1.5	0.8	2.6
S.R. 1.6-1.7	R. 60-79	7-13	7-12	6-8	30-40
<b>A. TORMENTOR</b>					
N. 11	M. 55.9	7.1	6.3	5.7	32.9
S.A. 1.6	S.D. 3.9	3.0	0.9	0.6	3.9
S.R. 1.4-1.7	R. 48-63	2-12	5-8	5-7	26-39
<b>A. TRIVITTATUS</b>					
N. 30	M. 74.3	5.9	7.2	6.4	36.6
S.A. 1.7	S.D. 9.0	1.6	1.5	1.3	6.8
S.R. 1.4-1.8	R. 52-97	3-10	4-11	4-10	21-50
<b>GROUP G</b>					
<b>A. ABORIGINIS</b>					
N. 11	M. 94.5	16.1	29.3	7.4	50.9
S.A. 2.1	S.D. 4.5	1.8	5.5	1.5	6.0
S.R. 1.8-2.4	R. 90-105	14-20	22-36	6-10	41-57
					52.5
					9.7
					38-68

## MESONOTUM (CONT.)

## MESONOTUM

## SCUTELLUM

SPECIES	Postero- Lateral	Antero- Lateral	Acro- Stichal	"V" Group	Dorso- Central
<b>GROUP G (CONT.)</b>					
<u>A. ABSERRATUS</u>					
N. 30	M. 61.4	7.2	19.9	5.8	34.4
S.A. 1.8	S.D. 15.3	4.2	7.0	1.2	8.4
S.R. 1.4-2.0	R. 41-82	3-13	12-32	4-8	25-47
<u>A. AURIFER</u>					
N. 30	M. 68.0	6.7	8.8	5.2	32.3
S.A. 1.9	S.D. 10.8	2.8	3.3	1.4	4.3
S.R. 1.6-2.0	R. 48-89	5-12	6-13	3-8	27-39
<u>A. CATAPHYLLA</u>					
N. 30	M. 56.8	16.8	21.3	6.0	35.3
S.A. 1.7	S.D. 15.8	4.8	5.2	1.8	8.0
S.R. 1.2-2.1	R. 35-93	10-28	14-31	3-11	24-49
<u>A. COMMUNIS</u>					
N. 42	M. 60.3	11.6	26.3	6.9	41.1
S.A. 1.8	S.D. 11.8	4.5	4.7	1.7	6.7
S.R. 1.4-2.2	R. 35-83	0-26	15-35	4-11	29-55
<u>A. DECTICUS</u>					
N. 6	M. 40.5	6.2	16.3	4.2	22.2
S.A. 1.3	S.D. 3.1	1.3	1.9	0.4	3.1
S.R. 1.2-1.4	R. 38-46	5-8	14-19	4-5	18-26
<u>A. DIANTAEUS</u>					
N. 30	M. 53.1	8.0	24.3	5.7	37.1
S.A. 1.8	S.D. 6.0	2.3	4.6	0.9	3.8
S.R. 1.6-2.0	R. 40-64	5-12	15-31	4-8	31-45
					46.6
					9.3
					28-63

## SCUTELLUM

## MESONOTUM

SPECIES	Postero- Lateral	Antero- Lateral	Acro- Stichal	"V" Group	Dorso- Central	
<b>GROUP G (CONT.)</b>						
<u>A. HEXODONTUS</u>						
N. 30	M. 70.5	17.5	25.4	6.4	44.4	47.3
S.A. 1.9	S.D. 12.4	5.1	5.7	1.7	6.8	9.0
S.R. 1.6-2.2	R. 52-103	11-32	16-39	4-11	24-55	31-64
<u>A. IMPIGER</u>						
N. 30	M. 66.6	25.0	33.8	5.6	51.8	49.6
S.A. 1.6	S.D. 6.9	5.3	5.1	2.1	5.5	6.4
S.R. 1.3-1.9	R. 48-79	14-38	24-45	4-15	41-69	39-62
<u>A. IMPLICATUS</u>						
N. 30	M. 55.9	10.1	22.0	6.6	31.9	35.9
S.A. 1.6	S.D. 12.3	3.1	3.5	1.6	5.0	6.9
S.R. 1.4-1.9	R. 35-79	6-18	15-28	3-12	24-46	25-57
<u>A. INTRUDENS</u>						
N. 30	M. 60.2	11.3	25.1	6.2	37.2	46.0
S.A. 1.7	S.D. 10.4	3.3	5.4	1.1	5.8	10.2
S.R. 1.2-2.0	R. 38-79	5-19	14-39	4-8	26-49	23-65
<u>A. NIGRIPES</u>						
N. 15	M. 93.8	38.0	40.9	5.3	61.5	74.9
S.A. 2.0	S.D. 13.2	9.9	10.1	1.2	7.9	11.3
S.R. 1.6-2.2	R. 54-108	24-53	30-68	4-8	41-72	58-106
<u>A. NIPHADOPSIS</u>						
N. 30	M. 67.3	22.7	29.7	6.1	47.1	53.6
S.A. 2.0	S.D. 14.7	5.7	6.5	1.4	8.6	10.9
S.R. 1.5-2.2	R. 43-102	16-36	18-44	3-10	27-60	28-80

MESONOTUM (CONT.)

MESONOTUM SCUTELLUM

SPECIES	MESONOTUM				Dorso-Central
	Postero-Lateral	Antero-Lateral	Acro-Stichal	"V" Group	
<b>GROUP G (CONT.)</b>					
<u>A. PIONIFS</u>					
N. 25	M. 71.1	10.8	31.1	8.2	51.7
S.A. 2.1	S.D. 10.8	4.8	4.6	1.9	7.7
S.R. 2.0-2.4	R. 52-96	5-21	25-41	6-13	38-71
<u>A. PULLATUS</u>					
N. 30	M. 68.4	14.5	28.8	6.9	46.4
S.A. 1.8	S.D. 8.4	3.0	4.1	1.3	6.8
S.R. 1.6-2.0	R. 54-87	10-19	23-36	4-10	30-57
<u>A. PUNCTODES</u>					
N. 10	M. 111.4	26.7	34.3	7.4	65.4
S.A. 2.1	S.D. 17.0	7.1	4.9	1.5	11.3
S.R. 1.9-2.2	R. 87-136	18-41	29-43	4-8	48-91
<u>A. PUNCTOR</u>					
N. 30	M. 64.7	9.3	23.5	5.8	44.9
S.A. 1.9	S.D. 9.5	2.6	4.2	0.9	7.2
S.R. 1.6-2.1	R. 36-88	4-15	14-32	4-7	31-59
<u>A. REMPELI</u>					
N. 2	R. 36-42	11-14	25-26	4	36-47
S.R. 1.8					
<u>A. SCHIZOPINAX</u>					
N. 30	M. 55.0	14.4	24.3	6.5	47.4
S.A. 1.9	S.D. 11.3	5.2	5.3	1.4	9.8
S.R. 1.8-2.2	R. 40-85	9-26	19-36	5-9	38-66

SPECIES	Postero- Lateral	Antero- Lateral	Acro- Stichal	"V" Group	Dorso- Central
<b>GROUP G (CONT.)</b>					
<u>A. SPENCERII</u>					
N. 30	M. 76.6	14.2	6.7	5.9	40.6
S.A. 1.8	S.D. 7.7	2.9	2.5	1.5	4.6
S.R. 1.6-2.0	R. 63-90	10-22	4-15	4-10	33-49
<u>A. STICTICUS</u>					
N. 30	M. 62.2	7.9	19.6	5.1	37.4
S.A. 1.6	S.D. 12.5	2.4	3.8	1.1	6.3
S.R. 1.2-1.9	R. 39-95	4-14	10-26	4-9	24-50
<u>A. THIBAUTI</u>					
N. 30	M. 43.8	2.8	7.6	5.3	25.1
S.A. 1.4	S.D. 12.8	1.7	2.7	1.2	6.7
S.R. 1.0-2.0	R. 29-84	1-8	5-16	4-9	17-52
<u>A. VENTROVITIS</u>					
N. 30	M. 72.5	25.6	28.2	4.4	50.4
S.A. 1.6	S.D. 7.3	4.2	5.2	1.0	7.9
S.R. 1.3-1.7	R. 55-85	20-36	21-38	2-6	36-68
<b>SUBGENUS FELTIANUS</b>					
<u>A. BICRISTATUS</u>					
N. 20	M. 65.3	24.4	27.1	6.8	39.0
S.A. 2.1	S.D. 6.4	4.6	3.6	1.1	4.5
S.R. 2.0-2.2	R. 51-77	14-31	19-35	4-9	33-53
<u>A. TRICHURUS</u>					
N. 30	M. 70.5	21.8	28.7	6.4	41.7
S.A. 2.1	S.D. 11.2	5.5	4.7	1.7	6.5
S.R. 1.8-2.4	R. 49-88	11-31	19-37	4-10	30-54
					47.8
					7.1
					33-58

MESONOTUM (CONT.)

M E S O N O T U M

S C U T E L L U M

SPECIES	Postero- Lateral	Antero- Lateral	Acro- Stichal	"vii" Group	Dorso - Central
<b>SUBGENUS</b>					
<b>CULICELSA</b>					
<b>A. TAENIORHYNCHUS</b>					
N. 30	M. 59.9	11.5	20.2	5.8	40.6
S.A. 1.6	S.D. 7.2	2.7	2.9	1.5	4.9
S.R. 1.3-1.8	R. 43-69	8-19	11-26	4-9	29-51
<b>A. MITCHELLAE</b>					
N. 30	M. 52.8	8.7	23.6	4.6	37.7
S.A. 1.7	S.D. 8.4	2.2	4.2	0.8	6.6
S.R. 1.5-1.9	R. 37-68	5-17	17-31	4-6	27-61
<b>A. NIGROMACULIS</b>					
N. 30	M. 77.6	19.4	24.7	6.1	49.7
S.A. 2.0	S.D. 11.1	6.8	6.2	1.8	7.8
S.R. 1.7-2.2	R. 60-99	11-47	10-36	4-13	39-66
<b>A. SOLLICITANS</b>					
N. 30	M. 66.3	11.7	26.2	6.5	50.8
S.A. 1.9	S.D. 10.0	3.3	4.4	1.8	8.0
S.R. 1.2-2.1	R. 39-81	7-22	14-34	3-11	29-65
<b>SUBGENUS</b>					
<b>KOMPIA</b>					
<b>A. PURPUREIPES</b>					
N. 10	M. 33.0	3.8	2.7	6.0	19.0
S.A. 1.4	S.D. 4.9	1.1	1.3	0	2.5
S.R. 1.4-1.5	R. 28-42	2-6	2-6	6	15-22
					21.2
					2.0
					18-25



## SCUTELLUM

## MESONOTUM

SPECIES	MESONOTUM			SCUTELLUM	
	Postero- Lateral	Antero- Lateral	Acro- Stichal	"v" Group	Dorso- Central
<b>SUBGENUS</b>					
<b>AEDES</b>					
<u>A. CINEREUS</u>					
N. 20	M. 44.6	6.6	19.3	5.8	30.2
S.A. 1.4	S.D. 11.8	2.2	3.0	1.2	7.4
S.R. 1.0-2.0	R. 20-61	3-12	15-26	4-9	15-46
<b>SUBGENUS</b>					
<b>AEDIMORPHUS</b>					
<u>A. VEXANS</u>					
N. 20	M. 64.6	11.0	21.9	7.2	44.0
S.A. 1.7	S.D. 16.2	5.3	6.9	2.5	13.2
S.R. 1.2-2.1	R. 31-90	0-26	5-38	3-13	26-80
<b>SUBGENUS</b>					
<b>FINLAYA</b>					
<b>GROUP B</b>					
<u>A. ATROPALPUS</u>					
N. 20	M. 42.6	2.4	5.7	4.4	31.0
S.A. 1.4	S.D. 11.3	2.5	1.8	1.0	6.9
S.R. 1.2-1.6	R. 25-67	0-8	4-9	3-7	21-46
<b>GROUP H</b>					
<u>A. HENDERSONI</u>					
N. 15	M. 47.0	4.9	11.1	6.5	30.7
S.A. 1.5	S.D. 10.0	0.9	3.6	1.5	7.9
S.R. 1.2-1.6	R. 32-58	4-7	6-17	5-10	21-36

MESONOTUM (CONT.)

SCUTELLUM

MESONOTUM

Postero-  
Lateral

Antero-  
Lateral

Acro-  
Stichal

"V"  
Group

Dorso-  
Central

SPECIES

GROUP H (CONT.)

A. TRISERIATUS

N. 20	M. 49.2	3.2	9.8	5.9	29.4	30.9
S.A. 1.7	S.D. 9.7	1.2	2.4	0.8	4.9	5.0
S.R. 1.6-1.9	R. 37-83	2-7	5-14	5-8	21-41	25-50

SUBGENUS

STEGOMYIA

A. AEGYPTI

N. 20	M. 30.7	1.5	2.2	4.9	17.1	17.1
S.A. 1.2	S.D. 7.5	0.5	0.6	0.9	4.3	3.9
S.R. 1.0-1.7	R. 19-45	1-2	2-4	4-6	11-27	12-26

TABLE I. The Mean (M) Standard Deviation (S. D.), and Range (R) of Thoracic Setal Numbers; the Sample Size (N), Size Average (S. A.), and Size Range (S. R.)

PLEURON

SPECIES	Anterior Pronotum		Posterior Pronotum		Propleuron		Post-Spiracular		Upper-Lower Mespimeron		Sterno-Pleuron	
	N	R.	N	R.	N	R.	N	R.	N	R.	N	R.
<b>SUBGENUS</b>												
<b>OCHLEROTATUS</b>												
<b>GROUP B</b>												
<b>A. ALOPONOTUM</b>												
N. 2	32-36	10-11	26-30	10-13	24-30	31-34	0	13-16				
S. R. 2.1-2.2												
<b>A. BARRI</b>												
N. 12	35.3	13.6	28.3	11.5	26.0	27.7	0	16.3				
S. A. 2.1	3.5	2.7	3.6	1.7	2.3	2.6	0	2.1				
S. R. 1.9-2.2	30-40	10-18	22-35	9-15	22-29	22-31	0	13-21				
<b>A. CANTATOR</b>												
N. 30	37.4	11.9	35.2	11.9	27.5	28.5	3.1	19.1				
S. A. 1.9	5.3	3.5	7.3	3.1	5.4	6.0	0.9	4.0				
S. R. 1.4-2.3	26-50	7-19	20-49	6-17	17-38	18-41	1-5	12-28				
<b>A. EXCRUCIANS</b>												
N. 30	33.2	10.2	35.3	9.0	21.7	23.4	0.3	17.7				
S. A. 2.0	7.8	2.3	10.2	2.9	3.7	5.1	0	3.2				
S. R. 1.8-2.3	19-52	6-15	20-65	4-18	13-28	12-36	0-4	13-24				
<b>A. FITCHII</b>												
N. 30	31.1	9.2	30.9	9.6	22.4	24.4	1.3	17.3				
S. A. 2.1	5.6	2.5	4.8	2.7	4.0	3.9	1.2	2.9				
S. R. 1.8-2.3	21-41	5-18	20-39	5-15	14-31	18-37	0-3	11-23				

PLEURON

SPECIES

Anterior Pronotum	Posterior Pronotum	Propleuron	Post- Spiracular	Prealar	Upper-Lower Mesepimeron	Sterno- Pleuron
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GROUP B (CONT.)

A. FLAVESCENS

M. 39.1	11.9	43.7	13.2	30.0	32.0	23.0
S.D. 4.1	1.8	8.6	3.8	4.5	5.5	4.1
S.R. 2.1-2.6	9-17	28-65	7-25	21-37	24-42	14-31

A. GROSSBECKI

M. 31.5	9.4	39.9	7.8	23.8	24.5	19.1
S.D. 2.0	1.8	10.4	2.3	4.1	5.1	3.1
S.R. 1.8-2.4	7-15	25-47	4-15	16-30	16-35	10-26

A. INCREPITUS

M. 32.0	9.5	23.5	9.7	22.8	23.2	16.1
S.D. 5.2	2.1	4.5	2.3	3.4	5.1	2.3
S.R. 1.6-2.1	5-13	15-35	6-15	17-31	14-33	11-20

A. RIPARIUS

M. 35.7	9.7	35.3	10.1	30.5	28.4	17.9
S.D. 3.5	2.0	3.4	2.4	4.7	6.0	1.9
S.R. 1.9-2.4	7-14	31-41	6-13	23-39	16-39	15-21

A. SQUAMIGER

M. 34.7	8.5	23.7	6.2	22.3	19.8	13.7
S.D. 3.2	1.0	2.6	1.0	3.2	0.9	1.5
S.R. 2.0-2.4	7-10	2-28	5-7	18-29	19-21	11-16

A. STIMULANS

M. 36.9	10.0	34.2	12.8	26.1	29.5	19.9
S.D. 7.1	1.9	8.4	3.8	4.8	6.3	3.7
S.R. 1.7-2.3	8-15	15-48	7-23	15-35	16-44	12-26

PLEURON

SPECIES	Anterior Pronotum	Posterior Pronotum	Propleuron	Post-Spiracular	Prealar Mesepimeron	Upper-Lower Sterno-
<b>GROUP C</b>						
<u>A. FULVUS PALLENS</u>						
N. 15	6.7	19.8	6.5	15.4	11.0	17.5
M. 30.9	1.2	2.1	1.0	2.6	2.5	3.0
S.A. 2.1	5-8	18-22	5-8	11-20	8-16	12-22
R. 27-38						
<b>GROUP E</b>						
<u>A. CAMPESTRIS</u>						
N. 30	8.2	28.7	13.5	28.3	30.8	20.7
M. 35.6	1.7	6.8	2.3	4.0	5.3	2.9
S.A. 2.1	5-11	21-36	10-18	22-37	22-41	14-26
R. 28-43						
<u>A. CANADENSIS</u>						
N. 30	7.7	17.9	8.4	19.0	17.4	14.6
M. 24.1	1.6	3.4	2.4	3.1	3.0	2.4
S.A. 1.8	5-11	11-27	3-13	13-25	12-24	11-23
R. 14-30						
<u>A. DORSALIS</u>						
N. 30	7.5	28.5	13.9	28.7	32.6	22.4
M. 34.6	1.5	5.5	2.5	4.3	7.1	4.6
S.A. 2.0	5-12	18-40	8-20	18-37	18-48	11-31
R. 23-52						
<u>A. MELANIMON</u>						
N. 30	7.1	24.2	10.2	25.3	25.6	19.6
M. 31.9	1.3	5.3	2.8	3.8	5.0	2.5
S.A. 1.8	4-9	15-38	6-17	16-31	15-34	15-24
R. 18-42						

PLEURON (CONT.)

PLEURON

SPECIES	Anterior Pronotum	Posterior Pronotum	Propleuron	Spiracular	Post-Spiracular	Prealar	Mesepimeron	Upper-Lower	Sterno-Pleuron
<b>GROUP X</b>									
<u>A. MONTICOLA</u>									
N. 10	M. 34.2	10.3	28.7	8.6	23.6	24.9	0	26.1	
S.A. 1.8	S.D. 4.3	1.9	2.9	1.8	3.4	4.4	0	3.1	
S.R. 1.8	R. 28-41	7-13	24-33	6-12	20-31	18-32	0	22-32	
<u>A. MUELLERI</u>									
N. 10	M. 31.1	9.7	20.7	9.5	19.7	23.3	0	13.7	
S.A. 1.5	S.D. 3.1	1.7	2.9	1.9	3.2	3.6	0	2.4	
S.R. 1.5	R. 28-39	7-12	15-26	6-12	15-26	19-30	0	11-19	
<u>A. SIERRENSIS</u>									
N. 30	M. 19.8	5.6	9.6	5.5	15.4	16.1	0.1	14.4	
S.A. 1.6	S.D. 3.8	1.0	2.1	1.3	2.8	3.1	0.3	2.9	
S.R. 1.4-1.8	R. 11-28	3-8	7-16	3-8	10-21	11-23	0-1	10-24	
<u>A. VARIPALPUS</u>									
N. 30	M. 22.4	6.4	17.1	5.8	18.0	14.2	0	21.0	
S.A. 1.4	S.D. 2.7	1.4	1.8	0.9	2.2	2.5	0	2.3	
S.R. 1.2-1.8	R. 18-29	4-10	14-20	4-7	14-22	8-19	0	16-25	
<b>GROUP F</b>									
<u>A. ATLANTICUS</u>									
N. 30	M. 30.1	7.9	23.6	8.6	13.2	15.7	0	18.7	
S.A. 1.7	S.D. 4.0	1.7	6.3	2.0	2.9	4.0	0	2.9	
S.R. 1.4-2.0	R. 21-37	5-11	17-43	5-15	9-21	9-22	0	16-25	
<u>A. DUPREEI</u>									
N. 10	M. 23.7	7.5	12.2	6.4	12.5	13.9	0	14.6	
S.A. 1.2	S.D. 3.0	1.5	1.1	0.9	2.4	1.7	0	1.6	
S.R. 1.1-1.3	R. 18-28	6-10	10-14	5-8	9-18	12-16	0	12-17	

PLEURON

SPECIES	Anterior Pronotum	Posterior Pronotum	Propleuron	Post- Spiracular	Prealar	Upper-Lower Mesepimeron	Sterno- Pleuron
<b>GROUP F (CONT.)</b>							
<u>A. INFIRMATUS</u>							
N. 14	M. 29.5	6.0	19.1	8.6	16.0	14.2 0	15.1
S.A. 1.6	S.D. 5.0	0.7	3.3	2.5	4.4	3.3 0	3.0
S.R. 1.3-1.8	R. 20-36	5-8	13-24	5-12	9-26	10-21 0	11-20
<u>A. SCAPULARIS</u>							
N. 10	M. 28.4	7.4	16.2	8.7	21.3	15.9 0	19.4
S.A. 1.6	S.D. 4.2	1.3	3.6	2.2	3.2	3.9 0	2.3
S.R. 1.5-1.8	R. 24-37	6-9	12-18	5-13	15-24	12-26 0	17-24
<u>A. THELCTER</u>							
N. 10	M. 33.1	7.6	24.7	7.7	22.1	23.7 0	13.3
S.A. 1.7	S.D. 3.0	0.9	3.3	1.3	3.5	4.1 0	1.5
S.R. 1.6-1.7	R. 29-38	6-9	19-30	6-10	18-30	19-31 0	11-16
<u>A. TORMENTOR</u>							
N. 11	M. 29.5	6.9	18.5	6.3	13.4	14.4 0	18.4
S.A. 1.6	S.D. 1.4	1.7	2.9	2.1	2.1	3.3 0	2.9
S.R. 1.4-1.7	R. 27-31	5-9	14-22	3-9	10-17	9-19 0	12.22
<u>A. TRIVITTATUS</u>							
N. 30	M. 30.9	7.1	16.5	8.3	17.8	18.1 0	18.9
S.A. 1.7	S.D. 5.9	1.8	2.8	3.3	3.0	4.7 0	3.4
S.R. 1.4-1.8	R. 24-47	4-14	12-22	4-17	11-23	12-34 0	14-29
<b>GROUP G</b>							
<u>A. ABORIGINIS</u>							
N. 11	M. 33.4	13.2	35.4	13.0	26.0	32.0 1.7	20.3
S.A. 2.1	S.D. 3.6	2.0	6.7	2.1	2.2	4.7 0.6	1.8
S.R. 1.8-2.4	R. 28-40	10-16	28-47	9-15	21-29	26-42 1-3	16-22

PLEURON (CONT.)

PLEURON

SPECIES

Anterior Pronotum    Posterior Pronotum    Propleuron    Post-Spiracular    Prealar Mesepimeron    Upper-Lower Sterno-  
Pleuron

GROUP G (CONT.)

A. ABSERRATUS

N. 30	M. 33.9	10.3	32.9	9.4	21.7	25.6	14.2
S.A. 1.8	S.D. 5.7	2.5	9.4	2.8	5.2	6.7	2.8
S.R. 1.4-2.0	R. 26-43	6-15	22-49	6-16	14-34	16-39	9-21

A. AURIFER

N. 30	M. 32.7	9.0	21.1	10.1	20.9	22.5	13.9
S.A. 1.9	S.D. 4.5	1.7	3.5	2.4	3.3	4.6	1.8
S.R. 1.6-2.0	R. 26-44	6-13	15-29	6-15	15-28	16-33	12-17

A. CATAPHYLLA

N. 30	M. 26.2	10.9	25.1	8.0	23.2	26.2	17.7
S.A. 1.7	S.D. 3.4	2.3	7.4	2.8	4.6	7.7	3.8
S.R. 1.2-2.1	R. 22-35	6-15	14-45	2-13	16-32	13-40	11-25

A. COMMUNIS

N. 42	M. 30.7	10.3	27.4	8.5	24.6	30.4	15.3
S.A. 1.8	S.D. 6.2	2.6	7.1	2.7	4.8	6.7	3.1
S.R. 1.4-2.2	R. 21-44	7-18	15-47	4-15	16-33	21-52	10-22

A. DECTICUS

N. 6	M. 20.3	5.7	8.3	5.0	12.2	12.5	6.7
S.A. 1.3	S.D. 1.9	0.4	1.7	0.9	2.5	2.6	0.8
S.R. 1.2-1.4	R. 18-23	5-6	7-11	4-6	9-15	9-15	6-8

A. DIANTAEUS

N. 30	M. 29.2	9.2	19.8	9.4	22.2	22.1	13.2
S.A. 1.8	S.D. 2.3	1.9	2.7	2.1	3.4	6.1	1.6
S.R. 1.6-2.0	R. 24-32	6-12	15-24	5-13	15-28	14-38	10-16



## PLEURON (CONT.)

## PLEURON

SPECIES	Anterior Pronotum	Posterior Pronotum	Propleuron	Post-Spiracular	Prealar Mesepimeron	Upper-Lower Sterno-
<b>GROUP G (CONT.)</b>						
<u>A. HEXODONTUS</u>						
N. 30	M. 28.5	10.7	29.7	11.7	28.3	32.4 3.6 17.0
S.A. 1.9	S.D. 7.1	2.3	8.0	3.2	5.0	7.8 1.3 4.4
S.R. 1.6-2.2	R. 18-46	7-17	20-59	5-21	20-41	22-61 1-7 11-36
<u>A. IMPIGER</u>						
N. 30	M. 36.3	21.6	42.1	8.6	30.9	30.7 11.2 24.2
S.A. 1.6	S.D. 4.8	5.3	5.5	3.4	5.0	5.0 2.5 4.9
S.R. 1.3-1.9	R. 21-46	12-34	28-51	3-14	21-45	19-40 6-16 13-32
<u>A. IMPLICATUS</u>						
N. 30	M. 26.8	8.0	17.3	7.7	21.2	20.0 2.4 14.7
S.A. 1.6	S.D. 5.3	2.0	5.3	2.2	5.0	6.0 0.9 2.4
S.R. 1.4-1.9	R. 19-35	5-14	10-29	4-12	13-37	11-37 1-5 11-18
<u>A. INTRUDENS</u>						
N. 30	M. 28.1	9.1	19.1	9.2	23.2	21.8 0.7 17.7
S.A. 1.7	S.D. 6.7	2.6	4.8	2.9	4.7	5.9 1.0 3.3
S.R. 1.2-2.0	R. 12-48	4-15	12-33	4-16	13-32	8-32 0-3 10-24
<u>A. NIGRIPES</u>						
N. 15	M. 42.3	28.2	61.7	17.5	34.3	34.1 8.3 29.7
S.A. 2.0	S.D. 4.7	7.3	15.9	5.4	4.5	7.0 2.9 7.0
S.R. 1.6-2.2	R. 36-50	12-39	40-86	12-33	27-42	23-51 3-15 22-46
<u>A. NIPHADOPSIS</u>						
N. 30	M. 30.8	12.0	33.8	9.2	23.6	23.6 4.1 17.5
S.A. 2.0	S.D. 4.7	2.7	9.1	3.0	5.3	4.5 1.3 3.2
S.R. 1.5-2.2	R. 21-42	8-17	18-47	5-16	14-34	15-34 2-7 12-24

PLEURON (CONT.)

PLEURON

SPECIES

Anterior Pronotum	Posterior Pronotum	Propleuron	Post- Spiracular	Prealar	Upper-Lower Mesepimeron	Sterno- Pleuron
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GROUP G (CONT.)

A. PIONIPS

M. 28.8	10.9	33.2	12.6	30.2	33.7	17.7
S.D. 4.1	2.4	6.1	4.2	4.5	4.9	2.7
R. 21-36	6-15	27-53	6-23	21-37	23-42	13-23

A. PULLATUS

M. 34.9	15.7	33.5	13.3	29.6	39.3	16.8
S.D. 5.1	2.6	5.2	2.6	4.9	6.9	3.7
R. 26-46	10-20	25-49	9-20	19-40	25-52	12-29

A. PUNCTODES

M. 38.6	16.4	44.6	16.8	37.9	53.7	24.4
S.D. 5.4	2.3	5.7	5.0	5.2	12.4	2.9
R. 28-47	13-20	36-56	8-23	30-44	32-74	20-28

A. PUNCTOR

M. 30.1	9.8	27.5	11.8	24.9	26.5	14.7
S.D. 5.0	2.0	4.5	3.3	3.6	6.0	2.2
R. 21-38	7-13	20-37	7-21	14-31	16-41	11-19

A. REMPELI

R. 36-38	8-9	31-32	7	13-15	16-17	12-14
S.R. 1.8					0-3	

A. SCHIZOPINAX

M. 28.1	7.7	26.4	9.3	21.6	22.4	14.9
S.D. 4.7	2.6	5.3	3.0	4.5	6.4	1.9
R. 20-39	6-14	20-36	6-20	14-31	15-35	11-19

PLEURON

SPECIES	Anterior Pronotum	Posterior Pronotum	Propleuron	Post-Spiracular	Prealar Mesepimeron	Upper-Lower Mesepimeron	Sterno-Pleuron
<b>GROUP G (CONT.)</b>							
<u>A. SPENCERII</u>							
N. 30	M. 26.2	9.5	26.4	10.4	28.9	30.3	15.4
S.A. 1.8	S.D. 6.7	2.2	6.5	2.7	4.8	5.7	2.7
S.R. 1.6-2.0	R. 15-38	5-15	14-38	4-17	21-37	22-45	11-21
<u>A. STICTICUS</u>							
N. 30	M. 27.5	6.3	17.2	7.2	21.2	16.4	12.8
S.A. 1.6	S.D. 7.2	1.4	4.4	1.9	4.0	4.0	2.0
S.R. 1.2-1.9	R. 12-43	4-9	9-28	4-11	16-29	9-29	7-18
<u>A. THIBAULTI</u>							
N. 30	M. 21.9	6.0	18.8	7.2	18.0	18.7	14.3
S.A. 1.4	S.D. 4.5	1.6	3.7	2.9	5.2	6.2	3.5
S.R. 1.0-2.0	R. 15-34	4-11	12-26	4-15	11-29	12-36	10-22
<u>A. VENTROVITIS</u>							
N. 30	M. 31.5	13.5	40.1	10.6	34.1	33.8	31.1
S.A. 1.6	S.D. 3.2	2.6	5.7	2.6	5.7	4.1	8.1
S.R. 1.3-1.7	R. 27-39	10-18	28-50	5-16	26-45	24-41	21-54
<b>SUBGENUS FELTIANUS</b>							
<u>A. BICRISTATUS</u>							
N. 20	M. 32.7	14.7	34.2	12.5	32.5	55.0	22.3
S.A. 2.1	S.D. 2.9	2.7	2.9	2.8	3.8	6.6	2.3
S.R. 2.0-2.2	R. 30-41	9-19	28-43	8-19	24-38	44-70	18-27
<u>A. TRICHURUS</u>							
N. 30	M. 37.0	11.6	35.8	10.9	30.9	39.8	19.1
S.A. 2.1	S.D. 5.7	2.2	7.7	2.3	5.6	6.8	4.3
S.R. 1.8-2.4	R. 28-49	6-16	22-54	7-16	23-41	27-58	11-30

PLEURON (CONT.)

PLEURON

SPECIES	Anterior Pronotum		Posterior Pronotum		Spiracular		Post		Upper-Lower Mesepimeron		Sterno-Pleuron	
<b>SUBGENUS CULICELSA</b>												
<u>A. TAENIORHYNCHUS</u>												
N. 30	M. 27.5	6.7	26.4	7.5	19.4	18.8	1.0	17.3				
S.A. 1.6	S.D. 4.2	1.6	5.4	2.0	2.9	4.6	0.6	3.9				
S.R. 1.3-1.8	R. 20-38	3-10	17-36	4-12	14-25	11-29	0-3	10-26				
<u>A. MITCHELLAE</u>												
N. 30	M. 29.8	7.4	22.3	7.4	18.0	16.9	1.0	13.6				
S.A. 1.7	S.D. 4.6	2.4	8.4	2.0	3.0	4.4	0.4	1.9				
S.R. 1.5-1.9	R. 20-38	5-12	12-48	3-13	12-25	11-27	0-2	11-17				
<u>A. NIGROMACULIS</u>												
N. 30	M. 29.7	9.6	24.2	10.4	29.3	25.8	1.1	17.5				
S.A. 2.0	S.D. 4.7	2.6	3.2	3.7	5.1	4.3	1.0	4.3				
S.R. 1.7-2.2	R. 22-38	6-15	19-29	3-20	22-45	16-37	0-4	9-28				
<u>A. SOLLICITANS</u>												
N. 30	M. 32.5	8.2	20.8	7.6	22.6	21.2	0.5	13.5				
S.A. 1.9	S.D. 4.8	2.3	7.9	2.8	3.9	5.1	0.5	2.7				
S.R. 1.2-2.1	R. 20-43	4-15	12-54	5-16	16-29	9-38	0-2	9-21				
<b>SUBGENUS KOMPIA</b>												
<u>A. PURPUREIPES</u>												
N. 10	M. 10.1	3.2	4.6	0	7.7	13.9	0	4.3				
S.A. 1.4	S.D. 1.4	0.6	0.6	0	1.3	1.3	0	0.9				
S.R. 1.4-1.5	R. 8-12	2-4	4-6	0	6-10	13-17	0	3-6				

## PLEURON (CONT.)

## PLEURON

SPECIES	PLEURON					Upper-Lower Sterno- Mesepimeron Pleuron
	Anterior Pronotum	Posterior Pronotum	Propleuron	Post- Spiracular	Prealar	
<b>SUBGENUS</b>						
<b>AEDES</b>						
<u>A. CINEREUS</u>						
N. 20	M. 14.6	5.1	11.2	4.8	12.9	13.0 0.2 10.7
S.A. 1.4	S.D. 3.9	1.6	4.4	1.5	4.2	3.3 0.7 2.3
S.R. 1.0-2.0	R. 8-26	3-9	7-22	3-8	7-23	7-18 0-3 8-15
<b>SUBGENUS</b>						
<b>AEDIMORPHUS</b>						
<u>A. VEXANS</u>						
N. 20	M. 27.1	7.0	25.3	8.8	21.8	19.6 0.7 18.2
S.A. 1.7	S.D. 4.4	2.6	7.0	3.6	6.1	9.2 1.5 3.3
S.R. 1.2-2.1	R. 20-35	4-12	18-45	5-21	13-36	11-46 0-5 14-28
<b>SUBGENUS</b>						
<b>FINLAYA</b>						
<u>GROUP B</u>						
<u>A. ATROPALPUS</u>						
N. 20	M. 16.3	4.7	7.4	4.9	12.7	16.7 0 11.9
S.A. 1.4	S.D. 3.1	0.8	1.5	1.9	2.4	8.4 0 2.3
S.R. 1.2-1.6	R. 9-22	3-6	4-10	2-9	7-16	9-44 0 9-18
<b>GROUP H</b>						
<u>A. HENDERSONI</u>						
N. 15	M. 19.7	4.7	12.7	6.7	14.7	15.1 0 16.2
S.A. 1.5	S.D. 2.8	1.0	2.5	2.0	4.2	3.9 0 3.6
S.R. 1.2-1.6	R. 13-24	3-7	8-16	4-11	10-20	11-24 0 11-21

## PLEURON (CONT.)

## P L E U R O N

SPECIES	Anterior		Posterior		Post-		Upper-Lower Sterno-	
	Pronotum	Pronotum	Pronotum	Spiracular	Pleural	Mesepimeron	Pleuron	Pleuron

## GROUP H (CONT.)

A. TRISERIATUS

N. 20

M. 21.7

6.1

16.4

8.5

16.8

18.9

24.1

S.A. 1.7

S.D. 3.0

1.1

4.4

1.9

3.1

4.5

2.6

S.R. 1.6-1.9

R. 15-27

5-9

9-25

5-12

9-22

12-29

19-29

## SUBGENUS

STEGOMYIAA. AEGYPTI

N. 20

M. 10.2

4.2

5.0

2.6

9.1

4.5

4.5

S.A. 1.2

S.D. 1.9

1.3

0.7

1.2

1.8

1.3

1.0

S.R. 1.0-1.7

R. 6-12

3-7

4-6

1-4

6-12

3-6

3-6