

Culicinae

(2)

(1)

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2003/01/27

2003/08/16

Culicinae

: *Culex*

14

. (*Culex perexiguus* , *Cx. sinaiticus* , *Cx. territans*)

Contribution in Determination of Some Culicinae in South Syria

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ABSTRACT

This research concludes an determination of some Culicinae mosquitoes distributed in south of Syria.

The study show that there are 14 species, 3 of them were recorded for the first time in the study area, these 3 species were described, illustrated , and distinguished from related species ,the seasonal reproduction and the habitat types of these were studied .

(*Culex perexiguus* , *Cx.sinaiticus* , *Cx.territans*).

Key Words: Classification, Culex, South of Syria.

Anophelinae ()
Culicinae .(De Zulueta,1973)

Cx.perexiguus, Cx.pipiens,
(Harbach, 1988) Cx.antennatus

Culex .
(Service, 1993) (*Wuchereria bancrofti*)

21 Culicini Culicinae

Sabethini
(Service, 1993)

: Culicini

(Andrien,1918; Barraud, 1921; Hsiao,1945; Anonymous,1944; Parr,
1943; Abdel-Malek,1960; Stone, 1961; Knight,1951; Kitron and Pener, 1986
and Harbach, 1985, 1988)

6 26
. (1)

Culicinae .
(Siphon)

(Culicini)

(1)

1	<i>Aedes aegypti</i>	Kumm, 1931.
2	<i>Ae. argenteus</i>	Legendre , 1924.
3	<i>Ae. calopus</i>	Hsiao , 1946.
4	<i>Ae. caspius</i>	Abdel-Malek , 1960.
5	<i>Ae. communis</i>	Stone et al ., 1959.
6	<i>Ae. fasciatus</i>	Legendre , 1924.
7	<i>Culex decens</i>	Abdel-Malek , 1960.
8	<i>Cx. deserticola</i>	Stone , 1961.
9	<i>Cx. fatigans</i>	Abdel-Malek , 1960.
10	<i>Cx. hortensis</i>	Barraud, 1921; Shtakelberg , 1937 and Parr , 1943.
11	<i>Cx. laticinctus</i>	Andrien, 1918 ; Monchadskii , 1936 and Parr , 1943.
12	<i>Cx. molestus</i>	Parr , 1943 and Abdel-Malek , 1960 .
13	<i>Cx. mattinglyi</i>	Abdel-Malek , 1960 and Stone , 1961 .
14	<i>Cx. mimeticus</i>	Parr , 1943 .
15	<i>Cx. pipiens</i>	Legendre , 1924.
16	<i>Cx. pusillus</i>	Stone et al . , 1959 and Abdel-Malek , 1960.
17	<i>Cx. thalossius</i>	Abdel-Malek , 1960 and Stone , 1961.
18	<i>Cx. theileri</i>	Barraud , 1924 ; Abdel-Malek , 1960 and Harbach , 1988.
19	<i>Cx. tritaeniorhynchus</i>	Parr , 1943 and Abdel-Malek , 1960.
20	<i>Cx. univittatus</i>	Parr , 1943 and Abdel-Malek , 1960.
21	<i>Culiseta amulata</i>	Parr , 1943.
22	<i>Cs. longiareolata</i>	Parr , 1943 and Anonymous , 1944.
23	<i>Cs. subochrea</i>	Parr , 1943.
24	<i>Mansonia buxtoni</i>	Stone et al . , 1959.
25	<i>Stegomyia fasciatus</i>	Andrien , 1918 and Barraud , 1928.
26	<i>Uranotaenia unguiculata</i>	Parr , 1943 and Abdel-Malek , 1960.

(1)

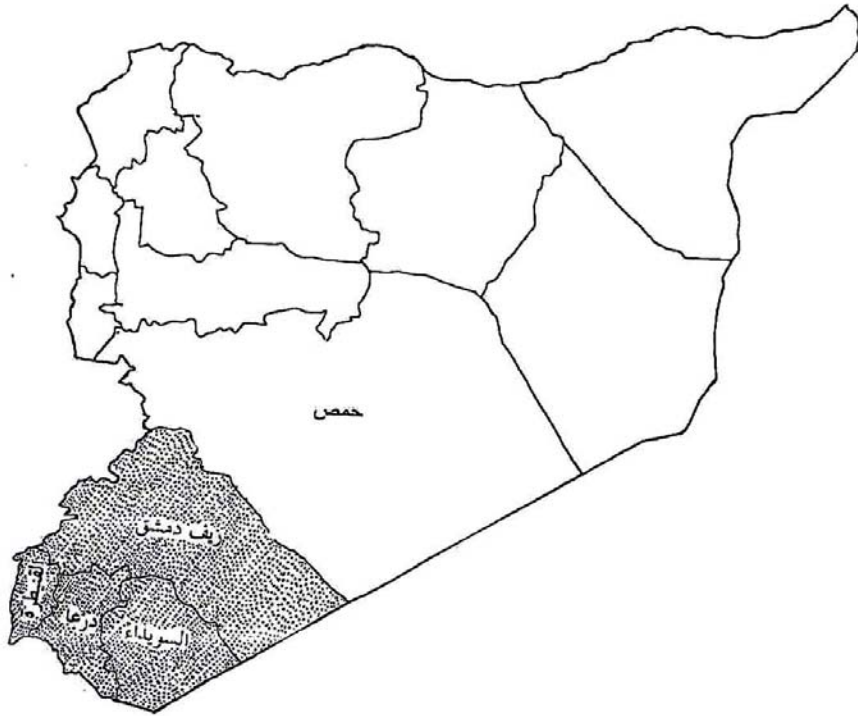
213

(

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.2002/06/10

2001/05/18



(1)

250
% 75
%10
(Amr. et al ., 1997)

.Hanna instruments, Woonsocket, Rio 2895, Clektemp C :

(Culicini)

(2)

		*		
1	<i>Aedes caspius</i>	DM	11	(1)
2	<i>Culex (barraudius) pusillus</i>	A1 – Ch1 – P4	57	– (1) (1) – (3)
3	<i>Cx.(Culex) laticinctus</i>	C4 – Ch1 - H1 – P4 – R2 – Rv	172	(2) – (2) – (1) – (1)
4	<i>Cx. (Culex) mimeticus</i>	A2 – M2	12	(1) – (1)
5	<i>Cx. (Culex) perexiguus**</i>	A – C2 – C4 – Ch1- Ir1–H1 – L – M3 – P2	542	– (8) – (4) – (8) (2)
6	<i>Cx. (Culex) pipiens</i>	A1- C3 – Ir2 – M4 – P1 – R1	2016	– (11) – (7) – (16) (5)
7	<i>Cx. (Culex) sinaiticus**</i>	C2 – Ch1	69	– (3) (1) (4)
8	<i>Cx. (Culex) theileri</i>	Ir1 – M1 – R1	22	(1) – (2)
9	<i>Cx. (Culex) univittatus</i>	A1- Ch1 – DM – Ir2 – M3 – M4 – R1 – R2	201	– (1) (3)
10	<i>Cx. (Maillotia) deserticola</i>	A2 – Ir1 – M1 – R2	61	– (1) (3)
11	<i>Cx. (Neoculex) territans**</i>	P3 – P4	147	(4)
12	<i>Cs. (Allotheobaldia) longiareolata</i>	A2 – H1 – M4	1487	– (1) (1)
13	<i>Cs. (Culiseta) annulata</i>	Ch1 – M 2	20	– (5) – (3) (25) (23) (6)
14	<i>Uranotaenia (Pseudoficalbia) unguiculata</i>	DM–C2 – Ch1	61	–(1) (1) –(1)

:C1 :A2 :A1 *
 : H1 :DM :Ch1 :C4 :C3 :C2
 :M2 :M1 :L : Ir2 : Ir1
 : P2 :P1 :M4 : Ir2 : Ir1 :M3
 : Rv :R2 :R1 :P5 :P4 :P3

. (3)

(3)

.2002-06-10 2001-05-18

21	27-15	0053	2001	
23.5	32-15	0237	2001	
26	32-20	0684	2001	
29.5	34-25	1251	2001	
26.5	30-23	1164	2001	
21.5	25-18	0685	2001	
18.5	24-13	0115	2001	
08.5	10-07	0000	2001	
05.5	07-04	0000	2002	
05	06-04	0000	2002	
13.5	17-10	0031	2002	
20	25-15	0123	2002	
22	28-16	0123	2002	
25	33-17	0055	2002	

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(Edwards, 1921, 1926; Parr, 1943; Berberian, 1946; Smart et al., 1965; Abdel-Malek, 1958; Stone et al., 1959 and Harbach, 1985, 1988)

Dr. Ralph E. Harbach

14

(1)

4894

Culicini

.(2)

29

Aedes (Ochlerotatus) caspius (Pallas, 1771) :

:(Al-Khalili,1997)

(11)

2002-05-11-

(Margalit and Tahori,1973)

.(Abdel-Malek,1960)

(DM) (

***Culex (Barraudius) pusillus* Macquart , 1850 :**

.(Al-Khalili,1997) .

(7)

-2001-08-22

(10)

(18)

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(57)

2001-08-10 -

2001-08-15

(22)

.2001-09-11

(A1)

(Ch1)

(P4)

.(Abdel-Malek,1960)

***Cx.(Cx.) laticinctus* Edwards,1913 :**

(Harbach,1988)

-25

(80)

(1)

(172)

2002-06-01

(15)

-2001-07

: .2001-10-12 (25) -2001-08-10
 -06-06 (12) : .2001-10-31 (12)
 .2001-08-19 (27) -2001
 (C4) :
 (R2) (P4) (H) (Ch1)
 (Anderien,1918; : (Rv)
 Monchadskii,1936 and Parr, 1943)

***Cx. mimeticus* Nov, 1899 :**

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. (Harbach, 1988)

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-19 (2) : (12)
 .2001-06-01 (10) : 2001-08
 (A2)
 .(Parr, 1943) (M2)

***Cx. perexiguus* Theobald, 1903 :()**

Sidon , Palestine [Lebanon] :

Culex perexiguus Theobald , 1903: Mongr . Cul., 3: 199 .

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.(Harbach, 1988)

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(3) : (543)
 -2001-06-01 (40) -2001-07-25 (1) -2001-07-25
 -2001-07-25 (1) -2001-09-11 (2)
 (110) -2001-08-28 (15) -2001-07-25 (12)
 -2001-08-19 (1) : 2001-07-25
 (8) -2001-09-06 (11) -2001-09-19 (80)
 (80) -2001-09-19 (12) -2001-08-10
 -11 (113) -2001-08-28 (18) -2001-08-22

(9) -2001-08-19 (2) : 2001-09
 -08-19 (1) -2001-10-01 (20) -2001-10-12
 (18) -2002-05-11 (6) : 2001
 .2001 -08-01

(C4) (C 2) (A) :
 (Ir2) (Ir1) (H1) (Ch1)
 (M3) (L)
 .(P2)

.(1-B) (1-A) :
 C-1 6-VI

S-1
 C-1 :(Head)
 (Antenne) C-14

A-1
 14 (Mentum)

M-1 P-4 :(Thorax)
 7-1 6-I :(Abdominal segments)
 6-VI

:VIII
 5 6.3 :(Siphon)
 S-1

(Saddle) (Anal gills) :X

***Cx. pipiens* Linnaeus, 1758 :**

.(Harbach, 1988)

:

(8) : (2016)

(5) -2001-70-25 (10) -2001-07-25

-07-25 (53) -2001-08-28 (35) -2001-08-28

-2001-06-01 (90) -2001-07-25 (105) -2001

-2001-09-11 (48) -2001-06-01 (30)

2001-07-25 (130) -2001-07-25 (101)

-08-10 (56) -2001-08-10 (6) :

-10 (71) -2001-08-10 (116) -2001

: 2001-08-10 (136) -2001-08

(5) -2002-04-20 (24) -2002-05-15 (25)

-08-22 (77) -2002-05-06 (3) -2002-04-30

-08-22 (62) -2001-08-22 (110) -2001

-09-19 (140) -2001-09-06 (21) -2001

-2001-09-19 (50) -2001-09-11 (117) -2001

-2001-10-03 (67) -2001-09-19 (3)

-2002-04-20 (10) -2002-09-19 (26)

-19 (10) : 2001-11-31 (96)

-29 (6) -2001-09-11 (10) 2001-08

-2001-09-11 (5) -2001-08-19 (28) -2001-05

2001-10-01 (20) -2001-10-12 (25)

-06-21 (5) -2002-05-07 (3) :

-2002-05-15 (1) -2001-08-01 (30) -2001

. 2001-08-01 (37)

(C4) (C2) (C1) (A2)

(L) (DM) (Ch1)

(M3) (M2) (M1)

(P5) (P4) (P3) (P2)

.Legendre (1924)

***Cx. sinaiticus* Kirkpatrick, 1925 :**()

. Sinai , Egypt :

Culex sinaiticus Kirkpatrick, 1925: Bull. Soc. Ent. Egypt , 8(1924): 383 .

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(Al-Khalili , 1997) :

(Stone, 1961)

.(Kirkpatrick, 1925) (Stone et al., 1959)

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-01 (35) :

-07-25 (30) -2001-09-11 (1) -2001-06

-2001-09-06 (2) :

. 2001-10-12 (1) :

(C2) :

.(Ch1)

.(2-B) (2-A) :

C-5 C-14

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C-1 1 0.7 :

C-14 C-10

3/2 A-1 0.6

9

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P-4 :

3-V- 3-II-IV 3-I :

I 7-I 6-I VI

III

:VIII

.

5.3 :

S-1 7

:X

X-2-1

***Cx. theileri* Theobald, 1903 :**

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.(Harbach,1988)

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-09-11 (18) : (22)
 (1) : 2001-05-23 (3) -2001
 (Ir1) 2001-08-01
 : (R1) (M1)
 (Kitron and Pener ,1986; Abdel-Malek, 1960 ; Barraud ,1924)
 ()
 .Harbach (1988)

***Cx. univittatus* Teobald 1901 :**

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.(Harbach, 1988) . :

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(20) : (201)
 -07-25 (18) -2001-09-11 (2) -2001-07-25
 (13) 2001-07-25 (1) -2001
 (28) -2001-08-22 (70) -2002-04-20
 : 2001-10-31 (20) -2001-08-22
 -08-01 (2) : 2001-10-01 (13)
 -05-11 (4) -2001-08-01 (10) -2001
 (DM) (A1) : 2002
 (Ir1) (Ch1)
 (R1) (M4) (M3)

(R2)

.Parr (1943)

***Cx. (Maillotica) deserticola* Kirkpatrick , 1925 :**

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(Harbach, 1988)

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(13)

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(61)

(3)

-2001-06-01

(5)

:

2001-05-27

2002-05-27

(40)

- 2002-05-15

(Ir1)

(A2)

Stone

(R2)

(M1)

.(1961)

***Cx. (Neoculex) territans* Walker, 1856 :()**

United States :

Culex territans Walker, 1856: Ins . Saunders., Dipt: 428 .

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. (Harbach , 1988) .

:

(30)

:

(147)

(56)

-2001-09-19

(1)

-2001-09-19

2001-09-19

(60)

-2001-09-19

(P2)

(Rv)

(3-B)

(3 -A)

:

P-3

(grid)

S-1

P-2

P-1

C-14 : :

A-1

. 13

:

P-3

P-4

. P-1

P-2

. 7-I

6-I

:

:VIII

10

:

S-1

3

:X

Cx.(Neoculex)

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Culiseta (Allotheobaldia) longiareolata (Macquart, 1838) :

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. (Harbach , 1988)

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(8)

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(1507)

-11-25

(6)

2001-07-25

(1)

-2001-08-28

(40)

-2001-08-10

(3)

:

2001

(39)

-2001-08-30

(25)

-2002-04-30

:

2001-10-12

(7)

-2001-08-30

-2002-05-15

(14)

-2002-03-15

(20)

(6)	-2001-10-20	(19)	-2001-03-06	(11)
	-2001-11-24	(13)	-2001-09-19	
(24)	-2002-05-15	(16)	-2001-09-19	(39)
-08-22	(3)	-2001-10-24	(8)	-2001-08-01
	-2001-08-22	(29)	-2001-08-22	(13)
	-2001-09-02	(40)	-2001-08-22	(6)
	-2001-09-19	(150)	-2001-09-19	(2)
	-2001-10-03	(47)	-2001-09-19	(3)
-24	(47)	-2001-09-19	(4)	-2001-10-03
-20	(17)	-2002-04-20	(22)	-2001-10
:		2001-10-31	(214)	-2002-04
(3)	-2001-10-12	(11)	-2001-08-19	(12)
(7)	-2001-08-19	(17)	-2001-08-19	
-29	(31)	-2002-06-06	(40)	-2001-09-11
-2001-08-19	(13)	-2001-10-01	(41)	-2001-05
(12)	-2001-08-19	(7)	-2001-08-19	(11)
-08-19	(19)	-2001-08-19	(25)	-2001-08-19
(24)	-2001-08-19	(19)	-2001-08-19	(14)
	-2001-08-19	(12)	-2001-08-19	
(14)	-2001-08-19	(15)	-2001-08-19	(21)
-08-19	(30)	-2001-09-11	(60)	-2001-09-11
(5)	-2001-06-21	(3)	:	2001
(25)	-2001-08-01	(32)	-2001-06-01	
-08-01	(3)	-2001-06-21	(13)	-2001-06-21
(A2)	:			2001
(M4)				(H1)

. Anonymous (1944) and Parr (1943) :

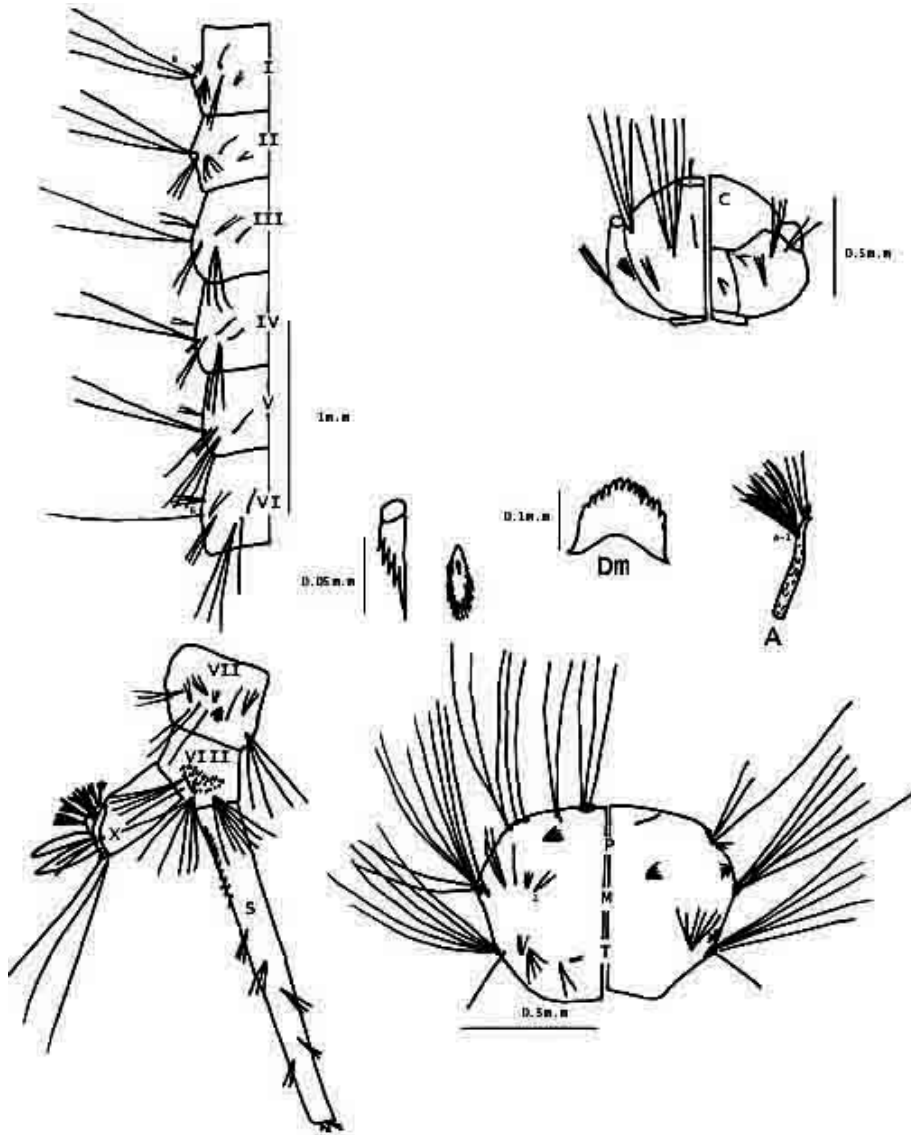
***Cs. (Culiseta) annulata (Schrank , 1776).* :**

.(Harbach, 1988)

-22 (9) : (20)
 2002-05-07 (11) : 2001-08
 (M2) (Ch1)
 . (Parr ,1943)

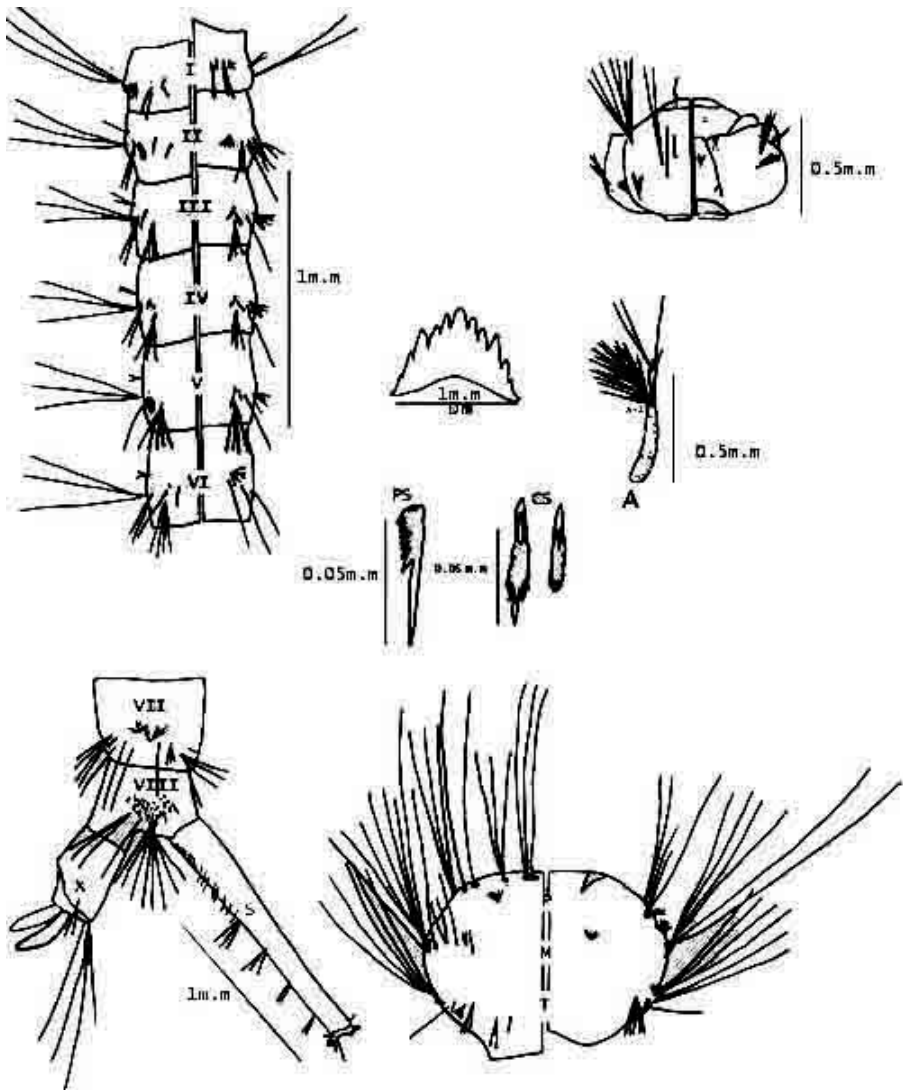
***Uranotaenia (Pseudoficalbia) unguiculata* Edwaeds, 1913. :**

· :
 . :
 .(Harbach, 1988)
 :
 (21) : (61)
 2001-10-01 (7) : 2001-09-06
 2001-08-01 (13) :
 (DM) (Ch1) (C2)
 .(Parr, 1943)



(2001-09-11) *Cx. Perexiguus*

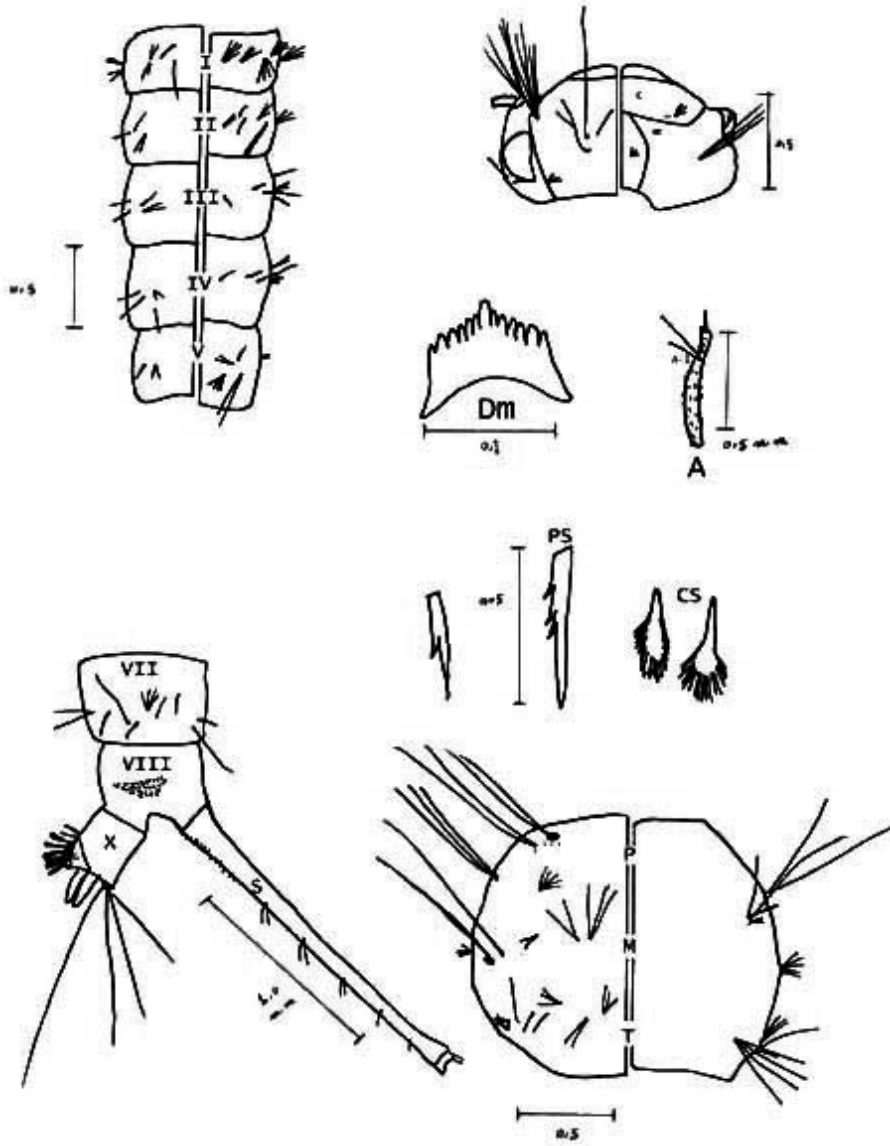
(1-A)



(2001-07-25

) *Cx. sinaiticus*

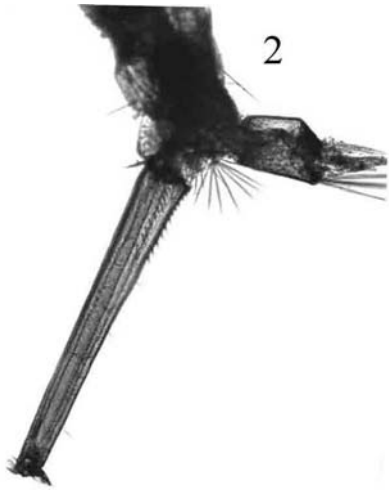
(2-A)



(2001-09-19

) *Cx. territans*

(3-A)



Cx. Perexiguus

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(1-B)

2 () 1



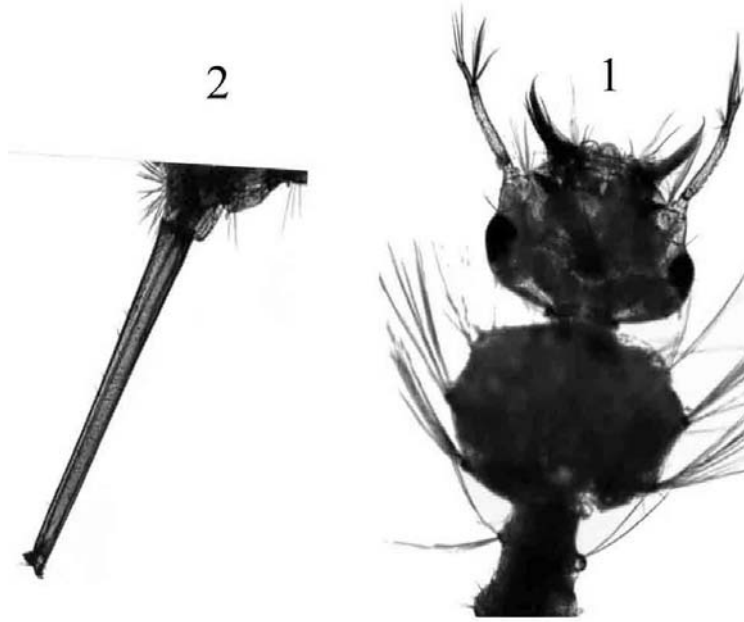
Cx. Sinaiticus

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(2-B)

2 () 1



Cx. terrifons

(3-B)

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2 ()

1

(C).cephalic
 (P).prothorax
 (T).metathorax
 (CS).comb scales
 (PS).pecten spines

(A).antenna
 (Dm).mentum
 (M).mesothorax
 (I-X) Abdominal segments 10-1
 (S).siphon
 (X).saddle

34

10

(4)

Culicinae
(5)

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(4)

2002	2002	2002	2002	2002	2002	2001	2001	2001	2001	2001	2001	2001	2001	
	11									10	47			<i>Aedes caspius</i>
									37		28	80	12	<i>Culex pusillus</i>
15											2		10	<i>Cx. laticinctus</i>
	6							29	218	143	127	4		<i>Cx. mimeticus</i>
	32	44					96	112	420	779	467	125	6	<i>Cx. perexguus</i>
								1	3		30	35		<i>Cx. sinaiticus</i>
									18	1			3	<i>Cx. theileri</i>
	4							33	2	100	39			<i>Cx. univittatus</i>
	29											5	13	<i>Cx. deserticola</i>
									147		1			<i>Cx. territans</i>
40	30	79	31				19	466	325	439		46	31	<i>Culiseta longiareolata</i>
	11									9				<i>Cs. annulata</i>
								7	21	13				<i>Uranotaenia unguiculata</i>
55	123	123	31	0	0	0	115	685	1164	1561	744	237	53	

Culicinae

(5)

Rv	R2	R1	P5	P4	P3	P2	P1	M4	M3	M2	M1	L	Ir2	Ir1	H1	DM	Ch1	C4	C3	C2	C1	A2	A1		
																+									<i>Aedes caspius</i>
				+													+							+	<i>Culex pusillus</i>
+		+		+					+						+		+	+							<i>Cx. laticinctus</i>
										+													+		<i>Cx. mimeticus</i>
						+			+			+		+	+		+	+		+				+	<i>Cx. perexiguus</i>
+		+	+	+	+	+			+	+	+	+		+	+	+	+	+		+	+	+	+	+	<i>Cx. pipiens</i>
											+			+			+				+				<i>Cx. sinaiticus</i>
		+									+			+											<i>Cx. theileri</i>
	+	+						+	+				+			+	+							+	<i>Cx. univittatus</i>
	+										+	-		+									+		<i>Cx. deserticola</i>
				+	+																				<i>Cx. territans</i>
+	+	+	+	+	+	+	+		+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	<i>Culiseta longiareolata</i>
										+							+								<i>Cs. annulata</i>
																+	+			+					<i>Uranotaenia unguiculata</i>
3	3	5	2	5	3	3	1	1	5	4	5	3	2	6	3	5	9	4	1	5	2	3	4		