Genus CULICELLA Felt

19. **Culicella dyari** Coquillett.

Culex (*Culicella*) *dyari* Howard, Dyar and Knab, l. c., iii, 457, 1915.

It occurs in the northeastern States, westward to the mountains of British Columbia. The larvæ are found in the early spring in the pools left from the melting of the snow. All our records for the adults are in May. It appears there is but a single annual generation and the winter must be passed in the egg state. This species is not a *Culex* on habits any more than by the structure of the male genitalia.

Genus DEINOCERITES Theobald

20. **Deinocerites cancer** Theobald.

Deinocerites cancer Howard, Dyar and Knab, l. c., iii, 201, 1915.

This species has been taken in southern Florida. The larvæ live in the water in the holes of certain species of crabs along the tropical seashore. While this forms not more than a section of *Culex* by the male genitalia, the characters of the larvæ and adults have differentiated to such an extent that it is best classed as a genus.

A SECOND NOTE ON THE SPECIES OF CULEX OF THE BAHAMAS

(*Diptera, Culicidæ*)

By HARRISON G. DYAR

The present author, jointly with Mr. Frederick Knab, published a note on the species of *Culex* of the Bahamas, based upon collections made in 1915. In Shattuck's "The Bahama Islands," published by the Geographical Society of Baltimore. Dr. T. H. Coffin lists the mosquitoes collected by himself in 1903. His names are as follows, together with the corrected nomenclature supplied in Howard, Dyar and Knab's Monograph, "Mosquitoes of North and Central America and the West Indies," 1912-17.

COFFIN	Page	HOWARD, DYAR AND KNAB	Page
Stegomyia fasciata Fab.....	280	*Aëdes calopus* Meig.....	826
Janthinosoma musica Say....	281	*Psorophora sayi* D. & K.....	554
Janthinosoma varipes Coq...	281	*Psorophora coffini* D. & K...	574
Wyeomyia smithii Coq.....	282	*Wyeomyia bahama* D. & K...	62
Culex confirmatus Arrib.....	282	⎧ *Aëdes condolescens* D. & K.	789
		⎩ *Aëdes plutocraticus* D. & K.	804
Culex cyanescens Coq.....	283	var. of *Psorophora coffini* D. & K.	574
Culex jamaicensis Theob.....	283	*Psorophora jamaicensis* Theob.	581
Culex nanus Coq.....	284	*Psorophora pygmaea* Theob..	600
Culex pipiens Linn.....	285	*Culex quinquefasciatus* Say..	346
Culex restuans Theob.....	286		
Culex serratus Theob.....	286	*Aëdes pertinax* Grabh.....	791
Culex sollicitans Walk.....	287	*Aëdes sollicitans* Walk.....	658
Culex taeniorhynchus Wied..	287	*Aëdes niger* Giles.....	672
Culex territans Walk.....	288	*Culex sphinx* How., D. & K..	301
Culex trivittatus Coq.....	289	*Aëdes obturbator* D. & K....	778

The following species have been since recorded:

Aëdes albonotata Coq. Monogr., p. 855. New Providence Is., 1915 (Dyar).

Culex bahamensis D. & K., Journ. N. Y. Ent. Soc., xiv, 206, 210, 1906.

Culex similis Theob., Monogr., p. 342, New Providence Is., 1915 (Dyar); Dyar and Knab, Ins. Insc. Mens., iii, 112, 1915.

Culex aseyehae Dyar and Knab, Ins. Insc. Mens., iii, 112, 1915.

Culex sp., Dyar and Knab, Ins. Insc. Mens., iii, 115, 1915.

It will be noticed that the species recorded by Coffin as *Culex restuans* was not restudied for the Monograph. I have recently gone over this and find that a new and very interesting form is represented.

Culex (Transculicia, new subgenus) **eleuthera,** new species.

Female.—Head with sparse narrow curved bronzy brown scales and numerous erect forked black ones; the sides with flat white scales, which run a little way up along the margin of the eye. Proboscis black, the middle portion injured. Mesonotum brown, with three darker lines in the integument, sparsely clothed with narrow curved bronzy brown scales, mixed with a few silvery whitish ones, which appear prin-

cipally in a pair of small round subdorsal dots. Abdomen black-scaled, with basal segmental white bands, widening a little in the middle and hardly widening at all at the sides; venter pale scaled. Wing scales dark, the costa, first and third veins closely scaled and appearing darker than the others. Legs black-scaled, femora and tibiæ whitish-lined below; tarsi narrowly but distinctly white-ringed at bases and apices of the joints, especially at the apices, the tibiæ also white at base and apex narrowly. Claws simple.

Male.—Proboscis with a pale spot beyond the middle, labellæ pale. Palpi exceeding the proboscis, black; broad white rings at the bases of the joints and the middle of the long joint; last two joints bristly. Antennæ normal, plumose. Mesonotum with more silvery scales than in the female, especially posteriorly about the antescutellar space. Venter of abdomen with a blackish band at the base of the penultimate segment. Claws one-toothed.

Genitalia.—Side pieces about twice as long as wide, strongly excavated at base; a quadrate hairless lobe arising from the apex of the basal emargination, bearing two short, stout, thickened appendages and a smaller one just below. Setæ of side pieces short, evenly distributed without, gathered in little patches within, one group on each side of the lobe, one at the outer third of the side piece and a larger patch just before tip. Clasp filament long, slender, uniform, with minute terminal spine. Harpes with a long basal branch, the tips rather delicate, curving over ventrally and densely covered with fine spines. Unci divided into three plates, the first slender, straight, upright, pointed at tip; second rounded, capitate, laminate, the profile of the laminæ spinous, heavily pigmented; third short, angularly bent and projecting outward at right angles. No basal appendages; no scales.

Types, one female, three males, No. 21570, U. S. Nat. Mus.; Governor's Harbor, Eleuthera, Bahamas, July 6, 1903 (T. H. Coffin).

The new subgenus is based on the peculiar male genitalia. The lobes of the side pieces are quite unlike those of any *Culex* proper and are closely similar to *Deinocerites*. The harpes,

however, are tufted as in *Culex* proper and not comb-shaped as in *Deinocerites*. The unci are as in neither of these groups.

Culex bahamensis was described from larvæ collected by Dr. Coffin, the adults being unknown. I have considered the possibility of the present species being the adult of *bahamensis*, but do not think it to be probable. The larva of *bahamensis* has the tufts of the air-tube in a straight line and therefore should belong in the *Melanoconion* group of *Culex; eleuthera* has the harpes tufted and belongs in *Culex* proper. The locality where Coffin took the *bahamensis* larvæ is not now known, but they were evidently not taken at Governor's Harbor, Eleuthera, for Dr. Coffin, in his published account, does not mention having taken larvæ at that place.

Culex aseyehæ Dyar and Knab.

Diligent search has failed to locate the types of this species. I can only conclude that Mr. Knab failed to attach type labels at the time of description, but left the specimens standing in the box, and they have now been placed with *quinquefasciatus* by me. I think the name is a synonym of this species. At the time, I was under the impression that the short-tubed larva breeding in "wild" rock-holes with *similis* and *sphinx* was a new species, and I told Mr. Knab so, persuading him, after my departure from Washington, and no doubt against his better judgment, to draw up a description. Recent study of the material shows that this species is only *quinquefasciatus*, breeding in "wild" pools. In fact this species seems to be distinctly less domesticated than *pipiens*, at least in regard to breeding places, for *aseychæ* was bred from a surface rock-pool on the road to Lake Cunningham with no habitation whatever within sight.

Culex reductor Dyar and Knab.

The species listed by Mr. Knab and myself as *Culex* sp. may be safely identified with *Culex reductor* of Jamaica. The larva agrees exactly with that species, and not with *floridanus* of Florida and Cuba.

This peculiar distribution is paralleled by *Aëdes albonotata*, a Santo Domingan species which I took in Nassau, but which

is not known from Cuba. Can the West Indian hurricanes have anything to do with this distribution? In an ordinary storm, mosquitoes seek shelter and do not rise; but a hurricane may conceivably carry them away, shelter and all. Now, the general track of these hurricanes, as shown by Dr. Fassig, is in a curved line convex to the Florida peninsula. The storms passing over Santo Domingo commonly pass next over the Bahamas, while those passing over Cuba generally strike southern Florida. I do not know whether mosquitoes are ever actually transported by these storms. While the wind is very violent, the rate of progress of the storm is comparatively slow, 10 to 12 miles an hour, according to Fassig. Moreover, we know too little about the actual distribution of the species. Collecting in the West Indies has been of the most fragmentary sort.

THE LARVA OF AEDES IDAHOENSIS

(*Diptera, Culicidæ*)

By HARRISON G. DYAR

In Insecutor Inscitiæ Menstruus (v. 120, 1917) I described an unknown *Aëdes* larva from Montana. Recently Prof. J. R. Parker sent me seven bred adults with larval skins, the larvæ found in a roadside pool, June 28, 1916. The adults are five females and two males. Three females are *idahoensis* with basal white abdominal bands; one female has in addition scattering white scales down the middle of the abdomen, rather distinct at the tips of the segments, and the remaining female has a broad suffused dorsal stripe, predominant posteriorly. The larvæ are all alike, having the following characters:

Head hairs single; skin conspicuously spicular-pilose; comb of the eighth segment with 14 scales, each with central thorn about as long as the body of the scale; air-tube short, the pecten of 19–21 teeth, the last two or three detached, followed by the hair-tuft; anal segment not ringed by the plate, the hairs running basally along the ventral line.