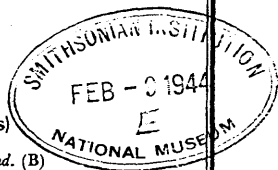


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A NEW SUBSPECIES OF *AËDES LEESONI* EDWARDS (DIPT., CULICIDAE) FROM THE SUDAN

By D. J. LEWIS, M.A., F.R.E.S.

(Entomologist, Sudan Medical Service.)

Aedes (*Aëdimorphus*) *leesoni* Edwards, 1932, subsp. *verna* subsp. n.

♀. *Head* with all decumbent scales on vertex narrow and nearly all pale. Proboscis uniformly dark above and below. Palpi dark. Tori dark anteriorly and pale above, almost bare. *Thorax* mainly dark brown. Scutum with many narrow dark scales and a few small areas of narrow scales, no broad scales on each side of the pre-scutellar space; scutellum with pale scales, those on median lobe narrow; some, usually most, of those on lateral lobes narrow, some intermediate and occasionally a few broad; scales on *a p n* narrow and on *p p n* nearly all narrow; paratergite with narrow and intermediate scales. About 10 post-spiracular and 20 sub-spiracular scales. *Abdominal* tergites with basal pale bands; sternites with dark apical bands. *Legs* mainly dark; hind femur dark all round for a short distance before tip, pale knee spot very small; pale spot at tip of hind tibia about as long as broad.

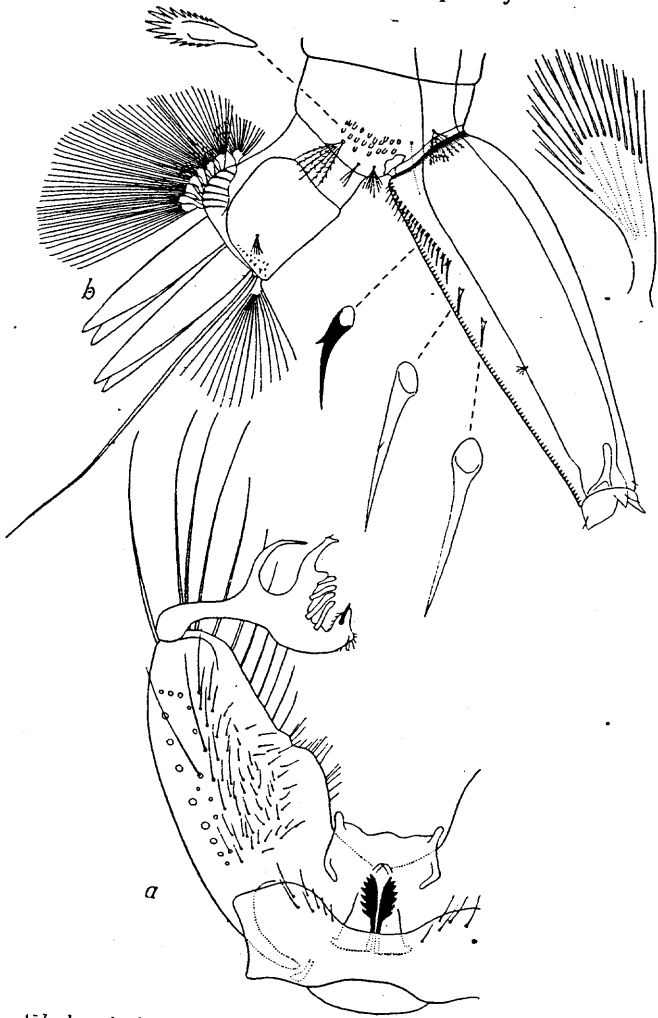
♂. Resembles ♀ in general but has dark tori and fewer post-spiracular scales. Palpi exceeding proboscis by length of last segment. Scales on *a p n* and *p p n* mostly narrow, some intermediate. Paratergite with broad and intermediate scales. *Terminalia* (fig. 1) closely resembling those of *A. leesoni* but distal horn of style much longer than projection at its base; distal spines 5 to 7 in number, spatulate, that on pubescent portion of style appearing pointed owing to its position; pubescent projection shaped as in *A. wigglesworthi* Edw., 1941.

Wing length: 3.1-3.8 mm.

Pupa. Integument mainly pale but with dark areas on posterior part of dorsum of thorax and on coxal area, trumpet pale except at tip. Dorsal seta divided near base into about 10 delicate branches; O and R divided very near base into about 8 delicate branches. Float hair pale; K long and pale; M a small dense tuft; S longer than K, branched; T about same length as K, branched. C-II a pale multiple tuft longer than its segment, C-III pale, half as long as its segment; C-IV and V pale with 4-7 branches, half as long as their segments. B-III single; B-IV-VI double, longer than their segments; B-VII weak, shorter than its segment. A-VII with 24 branches; A-VIII with about 13 plumose branches, situated anteriorly to the corner by $\frac{1}{2}$ of length of segment. Paddles broad and bluntly pointed as in *A. wigglesworthi*, margin smooth, seta minute, bifid or trifid.

Larva. *Head* distinctly broader than long. Antennae almost as long as head, spiculate, infuscated on distal half; tuft of about 9 branches at $\frac{2}{3}$; terminal and sub-terminal setae placed together at apex, the latter seta $\frac{1}{2}$ length of shaft; papilla on a cylinder of chitin shorter than diameter of shaft. A, B and C plumose, their bases and that of *d* almost in a straight line; A with about 6 branches, B 3-branched and C 4-branched, *d* minute, *e* and *f* with 4 branches. *Abdomen* (fig. 1): comb of about 20 scales. Siphon pale except for basal ring, index 4.3; anteriorly near base it narrows steeply to basal ring; pecten extending to about $\frac{1}{2}$ and consisting of about 21 spines of which the most distal 1 or 2 are wider spaced; most spines dark with one basal denticle, last 1 or 2 pale, last one simple; sub-ventral tuft very small, with about 5 branches, placed at about $\frac{2}{3}$. Anal segment with an

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—*Aëtes leasoni* subsp. *verna* subsp. n.: a, terminalia of ♂; b, eighth and ninth abdominal segments of larva; c, base of a tuft of ventral brush of larva.

incomplete saddle, a few spicules near posterior margin; upper caudal seta with about 15 branches, as long as saddle, lower single, lateral seta small, branched. Ventral brush with six pairs of many branched tufts in the barred area and one unpaired tuft proximal to it, tufts with unusually wide bases. Gills lanceolate, longer than saddle, subequal.

ANGLO-EGYPTIAN SUDAN: Blue Nile Province, Danagla Forest, near Wad Medani, 22.viii.43 (*D.J.L.*), 1 ♀ (type) with its larval and pupal pelts (paedotypes), 3 ♂♂ (paratypes), all bred from early stages from newly-flooded swamp. Wad Medani, 11 & 12.ix.43, 7 ♂♂, 3 ♀♀ (paratypes), caught as adults. It is intended to send the type and some paratypes to the British Museum and other paratypes to the London School of Hygiene and Tropical Medicine.

From the type form, *A. lesoni*, the subspecies differs chiefly in the predominance of narrow scales on the scutellum, *a p n* and *p p n*, and in the form of the style of the ♂. In Edwards's (1941) key *A. l. verna* would run to section 25, differing from the indicated species in having narrow and intermediate scales on *p p n*. In the key to larvae of *Aedes* given by Hopkins (1938) the subspecies would run to section 41, differing from the indicated species in having antennae slightly shorter than the head.

The larva from Heiban in the Nuba mountains referred to by Lewis (1943: table I) as *Aedes* sp. is apparently *A. l. verna*. Specimens were obtained five times in May and June (twice with *A. hirsutus* Theo.) in domestic water jars (*A. A. Bereir*) to which they may have been transported. Another larva was obtained, with *A. hirsutus*, in a pool at Kadugli in May (*H. Ali*). Three young larvae from Kerripi, Equatoria Province (26.iv.43, *Nur El Huda*), appear to be *A. l. verna*. Unlike several other species of the subgenus *Aedimorphus*, *A. l. verna* has only been found in the early part of the rainy season.

Hundreds of males were seen in herbage under trees at Wad Medani on 11.ix.43. When flying they were seen to be sensitive to the sound of the human voice, rising sharply in the air and momentarily increasing their humming. Females bit before sunset.

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