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**A NEW SPECIES OF THE GENUS AEDES,
SUBGENUS FINLAYA THEOBALD, FROM INDIA
(Diptera: Culicidae)¹**

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ABSTRACT

Both sexes, the larva, and the pupa of *Aedes (Finlaya) mohani*, n. sp. from India are described. The relationship of the new species to other members of the *niveus* subgroup is discussed.

The subgenus *Finlaya* of the genus *Aedes* Meigen is a rather homogeneous group of about 212 described species with a worldwide distribution except for the northern rim of the Holarctic Region. Currently, a revisionary study is being made of the members of the subgenus occurring in Southeast Asia. During the course of this work a collection of material from India obtained by the Southeast Asia Mosquito Project was found to include a new species. Although the collection locality of the involved specimens lies outside of the area included in the revisionary study, the new species has a direct bearing on an understanding of the subgroup to which it belongs.

***Aedes (Finlaya) mohani*, n. sp.**

(Fig. 1)

FEMALE. Head. Torus bare, dark; palpus dark, about 0.16 as long as proboscis; proboscis dark; vertex clothed with broad scales, these black dorsally except for indefinite area of paler scaling laterally imperceptibly merging with area of silver scales in extreme lateroventral portion, a line of narrowed silvery scales along ocular margin, this line slightly widened dorsomedially, a narrow patch of dark upright forked scales on occiput. Thorax. Anterior pronotum bare of scales above, with broad silvery scales below; posterior pronotum bare, or with a very few black scales posteriorly just below bristles; scutal integument dark, about anterior half silver scaled, this area broadly divided entirely to anterior margin by a medial area of dark scales, lateral margin of pale scaling continued posteriorly along lateral scutal margin past scutal angle at least to level of middle of paratergite and usually to

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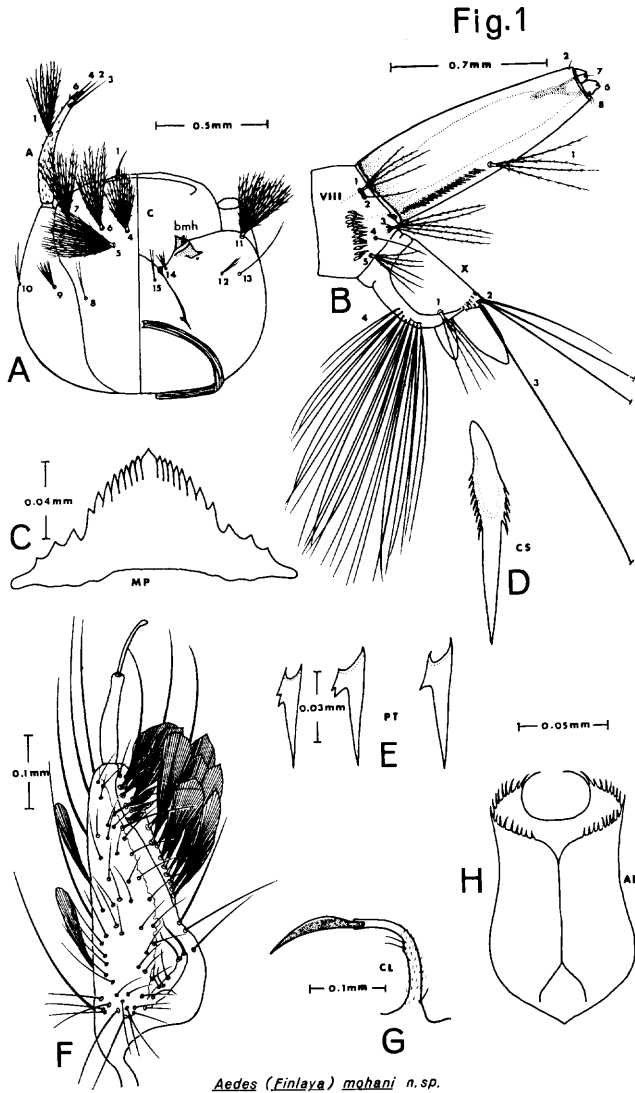


FIG. 1. *Aedes (Finlaya) mohani*, n. sp. A-E larva, A head; B terminal segments; C mentum; D comb scale; E pecten teeth. F-H male terminalia, F basimere and distimere; G claspette; H aedeagus.

posterior limit of paratergite, prescutellar area scaling dark, usually a few pale scales present on margin of prescutellar bare space; no acrostichal or dorsocentral bristles present; scutellum dark scaled; pleuron black, with a patch of broad overlapping silvery scales on each of following areas: propleural, dorsal sternopleural, ventral-posterior sternopleural, lower prealar, and mesepimeral; 4 to 5 propleural bristles. Legs. Coxae white scaled, sparse dark scaling ventrally on fore and mid; fore femur dark, anteriorly with a thin area of pale scales ventro-basally, posteriorly with pale scaling over dorsal one-half from base to middle; mid femur dark, anteriorly with possible thin pale area medially on ventral margin, posteriorly pale on ventral half at base, tapering to ventral margin just beyond middle; hind femur with approximately basal two-thirds white, apical third dark scaled, this dark area complete ventrally, slightly broader on posterior surface; tibiae and tarsi dark scaled; tarsal claws equal, unidentate on fore and mid legs, simple on hind. Wing. Dark scaled. Halter. Knob dark scaled, a few apical paler scales usually apparent. Abdomen. Tergum I with a broad lateral band of silvery-white scales, terga II to VII with prominent basolateral silvery-white spots, dorsal aspect dark except basolateral white spots visible dorsally on VI to VII and a complete basal white band present on VIII; sterna II to VII each with prominent basal white band, VIII bare of scales and strongly compressed laterally.

MALE. In general, similar to female, differing as follows. Head. Palpus elongate, approximately equal to proboscis in length, apex of III slightly upturned, IV and V straight and downtilted from III, ventral hairs apically on III, hairs mesally and ventrally along IV and V and apically on V. Vertex with dorsal broad scaling and upright forked scales yellowish-white to pale brownish. Thorax. Scutum silvery scaled, a broad longitudinal band of dark scaling from about level of wing bases to anterior scutal margin, usually dark scaling above wing bases also; scutellum pale scaled; broad scales on posterior pronotum sometimes palish in color or even white; 6 to 8 propleural bristles; mesopleuron as in female. Legs. As in female, except fore femur anteriorly lacks basoventral line of pale scaling. Fore and mid tarsal claws unequal, smaller claw with a subbasal tooth, larger claw of fore leg bidentate, unidentate on mid leg, hind tarsal claws equal and simple. Terminalia (Fig. 1). Segment IX with tergal lobes distinct, mammilliform, each bearing 5 to 6 strong setae; basimere long and rather narrow, outer surfaces densely clothed with black scales, central portion of mesal surface membranous for entire length, remainder distinctly sclerotized, tergo-mesal sclerotized surface with sparse setation except near base, inner margin of this surface with a sparse line of stouter setae, dorsobasal portion of this surface with a distinct cluster of unequal setae, basal ridge with about 7 to 8 setae, these increasing in development distally, distal 2 of these sinuously curved, sterno-mesal margin of sclerotized portion of basimere bearing a prominent patch of variably developed dusky scales along most of its

length; distimere simple, terminal appendage about 0.6 its length; claspette composed basally of a pilose stem bearing 2 to 3 distinct setae and apically of a sickle-like filament with a moderate median expansion, expanded portion with small outer area clearer in texture than remainder of filament, apical portion sharply tapered; aedeagus with curving fimbriate apical border.

PUPA. Cephalothorax. Trumpet width at beginning of pinna about 0.33 length of trumpet, length of pinna 0.21–0.36 length of trumpet; hair 1-C quite distinctly longer than 2, 3-C, single; 5-C only 0.50–0.73 as long as 1-C; 8, 9-C of about same magnitude of development as 2, 3-C; 10-C with 1 to 3 basal branches; 11-C noticeably longer than 10, 12-C, elongate, single. Trumpet width at beginning of pinna about 0.33 length of trumpet, length of pinna 0.21–0.36 length of trumpet. Abdomen. Hair 1-II-VI insignificantly developed, with 3 to 8 branches on II, 2 to 4 on III-IV, 1 to 3 on V, 1 to 2 on VI-VII; 3-V usually about equal distance from 1-V and 5-V; width of V only 0.52–0.66 length of 5-V; 5-VI only 0.40–0.66 length of 5-V; 9-VII with 2 (rarely single) simple or spiculate branches; 9-VIII with 3 to 6 spiculate branches; paddle margin usually with some fine submarginal spiculation apically, minutely and sparsely spiculate on margin of basal half; 1-P single, only 0.23–0.36 length of paddle midrib.

LARVA (Fig. 1). Integument of thorax and abdomen not spiculate; without prominent stellate hairs. Head. Antennae slightly swollen just before insertion of 1-A, tapered distally from there, distinctly spiculate; hair 1-A inserted just before middle, with 9 to 15 weakly spiculate branches; subapical bristle 2-A 0.83–1.03 length of 3-A and 1.04–1.23 length of 4-A; hair 1-C elongate, slender, distally tapered, sometimes divided; hair 4-C only slightly less developed than 5-6-C, with 8 to 13 branches; 5-C with 15 to 24; 6-C with 7 to 12; 7-C with 10 to 21; 4, 6, 7-C arranged in nearly straight line, 5-C at apex of a triangle posteriorly to 4, and 6-C; 8-C with 2 to 3 branches; 9-C with 4 to 8; 10-C with 4 to 5; 11-C with 14 to 17; 12-C with 2 to 3; 13-C single; 14-C with 2 to 4; 15-C with 2 to 4; basal maxillary hair (bmh) double; hairs 4–7, 11-C spiculate, flexible; hairs 14, 15-C and bmh with rather stiffly tapered branches; mentum with 9 to 11 lateral teeth. Abdomen. Some hairs thinly stellate in form. Hair 6-I-II with 3 to 4 branches (once double on II), 6-III-V double, 6-VI with 1 to 2; 7-1 with 1 to 2; lateral comb a row of 8 to 12 stout pointed spines, laterally finely fringed on slightly more than basal half (base of last fringe elements 0.55–0.60 from absolute basal limit of spine); siphon-saddle index 2.05–2.69; acus detached, transversely oblong; pecten with 16 to 24 teeth, dark, with a strong ventral denticle before middle, basal teeth no more strongly developed than apical teeth; 1-S with 5 to 7 branches; saddle with a small patch of short spines subs dorsally on posterior margin, ending well before level of hair 1-X; 1-X with 2 to 4 branches, about as long as saddle; 2-X with 3 to 5; ventral brush with 8 tufts, each tuft with 2 to 5 branches, distal 1-2 tufts precratal; anal gills

rather broad, short, subacutely tapered, dorsal pair about twice or more length of ventral.

Type data. Holotype, male #84, Coonoor, Nilgiri Hills, Madras State, India, 1968 (B. N. Mohan), terminalia not separated, associated larval and pupal skins on a slide collected as larva in bamboo stump. Paratypes: 17, including 2♂ (#81, 85), 4♀ (#75, 76, 79, 80), same data as holotype except #81 collected as larva in tree hole, all except #79 with slide-mounted associated larval and pupal skins; remaining 11 paratypes all collected as larvae in bamboo stump, Sim's Park, Coonoor, Madras State, India, including 4♂ (#30, 31, 33, 34), 7♀ (#23-29), all with slide-mounted associated larval and pupal skins; #31 and 81 with male terminalia slide mounted and #33 and 34 with male terminalia in glycerin tubes on pin. The holotype with associated slide will be deposited in the U. S. National Museum, Washington, D. C.; paratypes with associated slide mounts will be distributed between the British Museum (Natural History), London, and the U. S. National Museum.

Habitat. Bamboo stump and tree hole.

Distribution. India.

Taxonomic discussion. *A. mohani* can be distinguished from all other described species of the *niveus* subgroup, except *A. nipponicus* LaCasse and Yamaguti and *A. nippononiveus* Sasa and Nakahashi, by the divided anterior silvery scutal area of the male; in the remaining 21 named species and subspecies this pale-scaled area is solid or nearly so. Type materials of these two Japanese species have not been seen, but from the drawing with the type description, *nippononiveus* differs from *mohani* in having some elongate striated scales in the tergo-basal area of the basimere. Neither the description nor the drawing of *nipponicus* are sufficiently detailed to determine whether specialized seta-like scales exist in this area.

The female of *mohani* differs from that of *nipponicus* and *nippononiveus* in having the scutal silvery-scaled area entirely divided by a median longitudinal band of dark scaling, in lacking broad white scales on the posterior pronotum, and in having the scutellar scales all dark.

A. mohani cannot be distinguished in either the larval or pupal stages from a number of other species in the *niveus* subgroup. It is named after the collector, B. N. Mohan.