

Some Interesting Mosquitoes from Kenya

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In July 1966, Dr. Metslaar, of the Netherlands Medical Research Centre, Nairobi, collecting in Mombasa, Kenya, found four pale female A. gambiae Giles. All four were caught in bush at Port Reitz and no two are alike. These specimens show an interesting variation in the degree of albinism, from an almost normal pale winged A. gambiae to a very pale albinoid example, although none is as pale as the Nigerian albinoid mutants which have no dark scales on any appendage (Service, 1964). A description of the four specimens follows.

Specimen No. 1. Differs from normal A. gambiae by having the scales on the distal half of the palps white except for a small patch of dark scales at the base of and on the under surface of the fourth segment, and the under surfaces and last four tarsal segments of the fore legs are entirely sandy-brown. The wings have no dark scales on the basal fifth of the costa and the second and third pale areas of the costa and first vein are enlarged; dark markings on other veins reduced to small spots and fringe pale, with dark spots below the ends of veins two to six.

Specimen No. 2. Integument of proboscis, thorax and abdomen dark brown, contrasting with the pale yellow wings and legs. Proboscis covered with dark brown scales; thorax and abdomen with pale scales and bristles. Head rubbed, integument and tori pale sandy-yellow, remaining scales creamy-white with a few dark scales on either side; palpi with the apical dark band only faintly indicated. Tarsi with yellow scales only; femora and tibiae mainly yellow with a sprinkling of dark scales, not forming spots. Wings very pale, scales on veins mainly yellow but with a few dark scales forming four small rather ragged patches on the apical four fifths of the costa and first vein and one at the base of the second vein; a few dark scales form very small spots on either end of the third vein, at the base of the upper and lower forks of the second and fourth veins, and at the tip of the upper fork of the fourth vein; fifth vein with a very small spot of dark scales near the base and three small dark spots on the upper fork, two at the base and one at the tip; sixth vein with a few dark scales at the tip only: fringe dark with pale spots at the ends of all veins.

Specimen No. 3. Proboscis, thorax and abdomen as above. Palps rather rubbed but appear to be as described below for the fourth specimen. Tori and integument of the head light brown; head scales white in the middle, rest creamy-white except for a small patch of brown scales on either side in front. One front, mid and hind leg and last four tarsi of the remaining hind leg missing. Legs with sandy-brown integument and scales. Wing scales yellow, except for a few dark scales at the base and tip of the first vein.

Specimen No. 4. As No. 3 but paler. Palps with white scales on the apical two thirds and pale brown scales basally; integument dark on the basal three quarters with the apical quarter white. No dark scales on the head. Integument and scales of the legs pale yellow. No dark scales on the wings.

Gynandromorphism in mosquitoes is not uncommon but although a number of gynandromorphs have been reported from various parts of the world only three come from Africa (Patterson & Brooke Worth, 1961). The two examples described here were collected by the mosquito catching team of the Netherlands Medical Research Centre, Nairobi and were given to me by Dr. Metslaar. Both were taken by net catching in bush, the first, Culex (Culiciomyia) cinereus Theobald at Port Reitz, Mombasa, Kenya, in July 1966 and the other Aedes (Aedimorphus) dentatus (Theobald) in the Ngong forest, Nairobi, Kenya in June 1967.

C.(C.) cinereus gynandromorph

Head with the antenna on one side missing; torus on this side large and male-like; other antenna and palps as in the female. Legs female in character. Wing on side of missing antenna shorter and less heavily scaled than the typical female wing on the other side. Abdomen male in character; terminalia not dissected, wholly rotated and with normal male coxites and styles.

A. (A.) dentatus gynandromorph

Head with both tori alike, one antenna missing, the other typically female in character. Palps male on one side and female on the other. Both mid legs and one fore leg missing, remaining fore leg male in character with claws uneven and the larger one toothed. Wings equal in length, that on the opposite side to the male palp, male in character with all veins lightly scaled; the other wing with the costa, subcosta and veins one and two as in the female, heavily scaled; remaining veins lightly scaled. Abdomen generally male in character; terminalia with normal male coxites, style, paraprocts and ninth sternite, but phallosome replaced by female post-genital plate.

References

- Patterson, H. E. & Brooke Worth, C., 1961, Gynandromorphism in an African mosquito (Diptera: Culicidae). J. Ent. Soc. S. Africa 24, p. 214-215.
- Service, M. W., 1964. Two albinoid females of Anopheles gambiae Giles (Diptera: Culicidae) from Northern Nigeria. Proc. R. ent. Soc. Lond. 33, p. 101-102.