

Culex (Melanoconion) aikenii (A. & R., 1906) a Nomen Dubium;
ocossa D. & K., 1919 and panocossa Dyar, 1923 Both Valid

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The name aikenii was first made available in 1906 when Aiken and Rowland (Brit. Guiana Med. Annu. 1905:34) inadvertently published it in the combination Gnophodeomyia aikenii (apparently a former Theobald manuscript name for G. inornata Theobald, 1905) in association with a vague description and figures of a larva, the figures being questionably referred to it. In describing Culex ocossa in 1919, Dyar and Knab (Insecutor Inscitiae Mens. 7:6-8) rejected inornata (Theobald, 1905) as a junior secondary homonym of inornata Williston, 1893 in the genus Culex and replaced it with aikenii, crediting it to Aiken (1907. Brit. Guiana Med. Annu. 1906:60); they were uncertain both as to the association of inornata and aikenii and the distinctness of ocossa from either. In describing Culex panocossa in 1923, Dyar (Insecutor Inscitiae Mens. 7:120) synonymized ocossa with aikenii and later (Dyar, 1925. Insecutor Inscitiae Mens. 13: 21-22) suggested the probable synonymy of panocossa with aikenii. This synonymy has been generally accepted since that time.

In connection with a study of the mosquitoes of Jamaica (Belkin, Heinemann and Page, 1970, in press), I have found that 2 distinct species are involved in the current interpretation of aikenii. This has also been determined independently by Pedro Galindo (in litt.) in Panama. Furthermore, I found that the name aikenii is not applicable to either species for the following reasons.

The description of Aiken and Rowland (loc. cit.) obviously refers to recently emerged and probably young instars of a large species because of the following characters: "The head is at least half again as broad as the thorax. Much larger proportionately than atratus. The antennae are pale and translucent throughout." The illustration of atratus of Aiken and Rowland (fig. 25) shows that this was not a Melanoconion but probably a member of the chidesteri complex of Culex (Culex). Fig. 29, carrying the legend "probably Gnophodeomyia aikenii" suggests Culex (C.) quinquefasciatus. It is possible that Gnophodeomyia aikenii Aiken & Rowland, 1906 is in fact conspecific with quinquefasciatus since Culex aikenii Dyar & Knab, 1908 (U. S. Nat. Mus., Proc 35:61) which was based on 3 males and 1(?) whole larva collected by Aiken in 1908 has been shown to be conspecific with quinquefasciatus and this could have been based on material considered to be G. aikenii by Aiken. However, since none of the original larval material of Aiken and Rowland has been found in Guyana, the British Museum or USNM and since it is impossible to determine with certainty the taxonomic identity of Gnophodeomyia aikenii from the original description of the larva by Aiken and Rowland, I consider this nominal species to be a nomen dubium.

The identity of Gnophodeomyia inornata Theobald, 1905 may never be determined with certainty as the type series consists of females only. However, contrary to my statement (Belkin, 1968. Amer. Entomol. Inst., Contrib. 3(4): 12,16), it is not "aikenii" of current usage. I am indebted to Peter F. Mattingly for examining these specimens and for comparing them with topotypic ocossa. Theobald's species differs strikingly from the latter by the presence of broad instead of narrow scales on the vertex of the head.

The "aikenii" of recent authors consists of 2 distinct species as noted above: ocossa Dyar & Knab, 1919 described from British Guiana and panocossa Dyar, 1923 described from the Canal Zone. The immature stages of the 2 species have been taken together in Panama and the Canal Zone in beds of Pistia. To date ocossa and panocossa can be separated only by differences in the male genitalia that are essentially those used by Dyar in the diagnosis of panocossa. The figure of "aikenii" in Rozeboom and Komp (1950. Entomol. Soc. Amer., Ann. 43:99, fig. 2) is primarily that of panocossa except that it does not show properly the "dense tuft of curved hairs" on the apex of the sidepiece, the specialized seta of the sidepiece near the base of the clasper is too broad and the ninth tergite lobe is not typical. In ocossa, the "wrinkled" crest of the clasper is not as distinct, the specialized seta is broad and striated, the proximal division of the subapical lobe has longer apical appendages and there are a number of other less obvious differences including more prominent and more widely separated ninth tergite lobes. We have material of panocossa from Panama and Jamaica and it is probable that the records of "aikenii" from Costa Rica and Mexico belong to this species. Although there are slight differences in the male genitalia of specimens of ocossa from Guiana (type locality) and Surinam from those of Panama, I believe that only 1 species is involved and consider that the records of "aikenii" from Colombia and Venezuela also probably pertain to this species.