

The Occurrences and Habitat Characteristics of Mosquitoes in Accra, Ghana

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Abstract

A study to assess mosquito species occurrences and the effects of some ecological characteristics on their breeding was undertaken in Accra. Five species of mosquitoes, *Anopheles gambiae s.l.*, *Culex decens*, *Culex quinquefasciatus*, *Anopheles melas* and *Aedes aegyptii* were found occurring in a wide variety of places. *C. decens* were the most abundant and widely distributed, occurring sympatrically with *C. quinquefasciatus* in rice fields and fishponds. The *Culex* species occurred largely in pools of water with high nutrient levels equivalent to or slightly lower than 2.8 mg/l NH₄, 3.9 mg/l NO₃, 3.9 mg/l NO₂, 2.2 mg/l SO₄, 9.6 mg/l PO₄ and dissolved oxygen (DO) levels of range 2.9–8.8 mg/l. The *Anopheles* species, on the other hand, occurred largely in pools of water of low nutrient levels equivalent to or less than 0.5 mg/l NH₄, 0.6 mg/l NO₃, 0.8 mg/l NO₂, 1.3 mg/l SO₄, 0.8 mg/l PO₄ and high dissolved oxygen levels ranging from 5.5–18 mg/l. The pH, habitat size and temperature were also identified as determinants in the species occurrence, abundance and distribution.