Distribution d'espèces d'*Anaphèles gambiae* complex en République Démocratique du Congo

Distribution of species within the Anopheles gambiae complex in the Democratic Republic of Congo

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Résumé

Introduction. Malaria is the primary cause of morbidity and mortality in the Democratic Republic of Congo (DRC). It accounts for more than 40% of outpatient visits and for nearly 20% of deaths of children under the age of five. The primary malaria vector control intervention in DRC is the distribution of long-lasting insecticidal nets (LLINs). However, to ensure that this intervention, or others that might be used in the future, are effectively applied requires an understanding of the malaria vectors present is essential.

More than 60 species of Anopheles mosquitoes are present in DRC2 includes members of the *Anopheles gambiae* complex. The *Anopheles gambiae* complex is currently encompassed 8 species: *Anopheles gambiae*, An. coluzzii, An. arabiensis, An. quadrimaculatus, An. amharicus, An. melas, An. merus, An. bwambae. Whereas in several countries the composition of the species in the *Anopheles gambiae* complex is well known, there has been relatively little survey done in DRC. The aim of this work was to provide a deeper understanding of the members of the *Anopheles gambiae* complex present in DRC.

Methods. Mosquitoes were collected in 16 sites across DRC between July 2004 and July 2011. The following sites were visited: Kimpese, Vanga, Kikwit, Bandundu, Kapolowe, Lubumbashi, Lodja, and Mbuji Mayi

Mosquitoes were collected as larvae on an ad hoc basis using dippers and were reared in field laboratories to the adult stage for morphological identification.

Molecular analysis

Molecular analysis was conducted in two laboratories to determine the species present.

Mosquitoes were identified to species using a conventional PCR method.

Results. In total, 765 mosquitoes were tested. All mosquitoes that were morphologically identified as belonging to the *Anopheles gambiae* complex and that were tested were either *Anopheles gambiae* s.s. or An. coluzzii. None of the other members of the complex were identified.

Conclusion. This work represents a preliminary attempt to provide distribution of *An. gambiae* s.s. and An. coluzzii in DRC. Further study on the *Anopheles gambiae* complex in DRC will provide more detail to the distribution of the species within this complex.

Keywords: *Anopheles gambiae* complex, species, distribution, mosquitoes, DR Congo