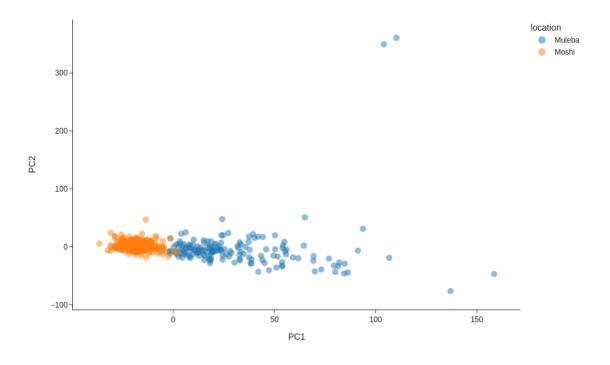
## Copy number variants underlie the major selective sweeps in insecticide resistance genes in Anopheles arabiensis from Tanzania.

Eric R. Lucas, Sanjay C. Nagi, Bilali Kabula, Arjen E. Van't Hof, Emily J. Rippon, Dimitra Pipini, Nicholas J. Harding, Naomi A. Dyer, Chris S. Clarkson, Alistair Miles, Martin J. Donnelly, David Weetman

Electronic Supplementary Material Supplementary figures and tables



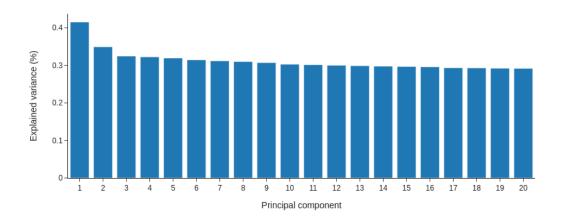
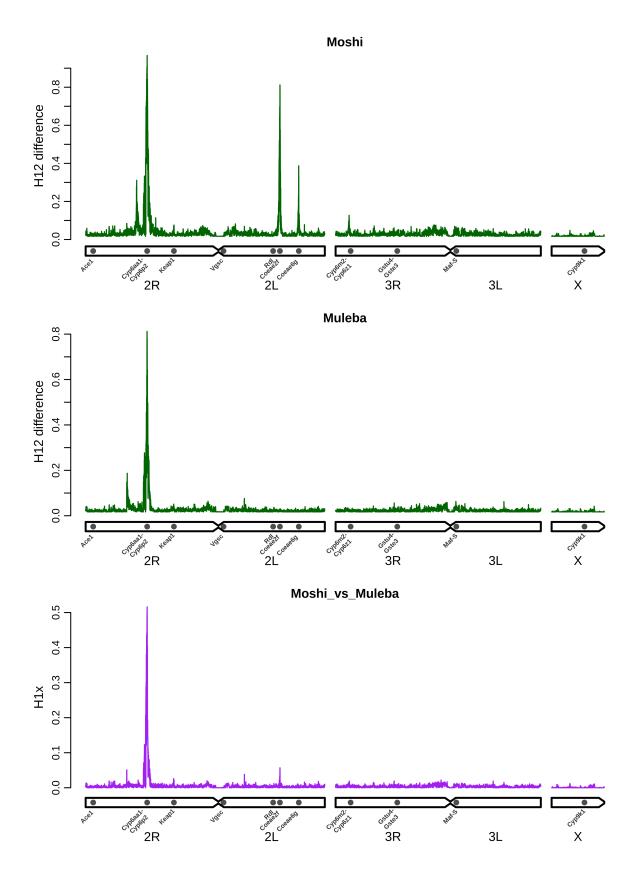


Fig. S1: PCA (using quality-filtered biallelic SNPs from genomic region 3L:15,000,000-41,000,000, euchromatic and free of chromosomal inverstions). Top panel shows clustering of samples by region. Bottom panel show variance explained by the first 10 PCs, indicating that PCs 3 onwards explain similar levels of variance and are thus likely only capturing noise.



**Fig. S2**: Selection scans showing genome-wide H12 signal in Moshi (top) and Muleba (middle), as well as shared signals of selection (H1x) between the two sites (bottom).

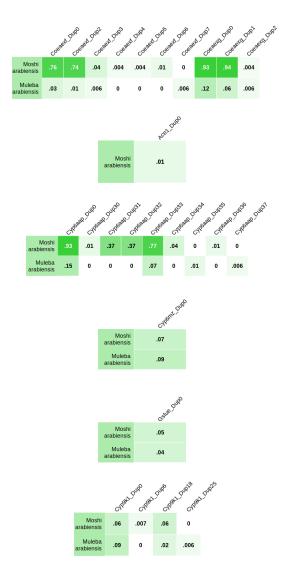


Fig. S3: Frequency (proportion of samples carrying at least one copy) of known CNV alleles detected using diagnostic reads around the Coeaexf cluster, the Coeaexg cluster (combined into a single subfigure), Ace1, the Cyp6aa / Cyp6p cluster, the Cyp6m / Cyp6z cluster, the Gste cluster and Cyp9k1. Only CNV alleles with frequency > 0% are shown. Cell darkness provided as a visual aid for the magnitude of the value in each cell. The genomic coordinates of each CNV allele can be found in Supplementary Data S@. In each cluster, the "Dup0" column indicates the presence of increased copy number in any of the genes in the cluster. Where this is larger than the sum of known alleles, it suggests the presence of uncharacterised CNV alleles. "Del" alleles in Ace1 represent secondary deletions within the Ace1-Dup1 CNV.