

The essential oils from 15 species of African plants selected by ethnobotanical considerations and field inspection (odour and presence of insects) were screened for fumigant toxicity to *Anopheles gambiae* s.s. in the laboratory. Essential oils from 6 species showed varying levels of toxicity, with *Conyza newii* (Compositae) and *Plectranthus marruboides* (Labiatae) being the most potent. Fifty compounds representing ~74% of the essential oil of *C. newii* were identified by GC-MS and GC-coinjection (for available standards). The major and some of the minor constituents of the two oils were assayed at different doses. Two compounds, from *C. newii*, perillaldehyde and perillyl alcohol, exhibited higher fumigant toxicity ( $LD_{50}=1.05\times 10^{-4}$  and  $2.52\times 10^{-4}$  mg cm<sup>-3</sup>, respectively) than the parent oil ( $2.0\times 10^{-3}$  mg cm<sup>-3</sup>). GC-MS analysis of the essential oil of *P. marruboides* gave results similar to that previously reported. Interestingly, none of its components were active, suggesting that the insecticidal activity of the oil results from either some of the minor components or as a blend effect of some of the major constituents.