

Extracts of steam distillates of the desert shrub *Commiphora quadricincta* were tested for their effects on the maturation of gregarious immature males and females of the desert locust, *Schistocerca gregaria*. Maturation was significantly faster in immature adults exposed to the extract obtained before winter rains than in those exposed to the extract obtained after the rains, with respect to locust colour changes (yellowing of body), mating activity, aggregation-maturation pheromone titres (as measured by phenylacetonitrile levels in males), ovulation (as determined by the length of oocytes in females) and oviposition time. A large number of the compounds in the crude extracts were identified as terpenoids by GC-mass spectrometry. Twenty-two electrophysiologically active compounds were located by GC-EAD in the extract of plant samples taken before the rains, while extracts from plant samples taken after the rains contained 12 such active components. These results confirm a previous finding that at the onset of the rainy season, the essential oil of *Commiphora* shrubs accelerates the maturation of immature adults of the desert locust.