

Olfactometric bioassays showed that nymphs of crowded desert locusts, *Schistocerca gregaria*, aggregated in response to volatiles derived from their feces and to volatiles emitted from the feces of young adults, but were indifferent to volatiles emitted by older adult feces. On the other hand, young and older adults were not only responsive to their own fecal volatiles but also cross-responsive to each other's and that of the nymphs. Charcoaltrapped volatiles from the feces and synthetic blends of the fecal volatiles also elicited similar responses. Young adults responded moderately to a blend of nymphal volatiles and those derived from nymphal feces. GC-EAD and GC-MS analysis of the trapped volatiles revealed the presence of guaiacol and phenol as predominant electrophysiologically active components of nymphal and young adult feces. Fecal volatiles of older adult contained phenylacetonitrile in addition to guaiacol and phenol, which were present in relatively lower proportion. These results suggest that fecal volatiles are part of the aggregation pheromone complex of the desert locust, which includes the pheromone blends produced by nymphs and older adults, respectively.