

Table 4 Results of principal component analysis: contribution of 37 variables to the first three principal components calculated from 53 females *An. arabiensis* and 35 females *An. gambiae*

Character	Component		
	1	2	3
Hind leg length	0.962	-0.268	0.010
Mid leg length	0.946	0.206	-0.245
Fore leg length	0.912	0.320	0.246
Wing length including the fringe	0.872	-0.098	0.229
Wing width including the fringe	0.797	-0.095	0.025
Length of palpal segment III	0.749	0.136	-0.055
Median dark spot	0.655	0.120	-0.081
Length of palpal segment IV	0.607	0.024	-0.070
Pre-apical dark spot	0.418	-0.031	-0.128
Palpal length	0.414	0.312	-0.150
Length of apical pale band on palpus	0.398	0.141	0.260
Length of palpal segment V	0.392	0.172	0.022
Antenna flagellum length	0.373	-0.074	0.033
Length of palpal segment II	0.350	0.159	-0.133
Apical dark spot	0.347	0.040	-0.140
Pre-sector dark spot	0.344	0.026	-0.005
Apical pale spot	0.234	-0.029	0.114
Accessory sector pale spot	0.212	0.052	0.181
Sub-apical pale spot	0.202	-0.129	0.188
Sub-costal pale spot	0.187	0.186	0.108
Pale band at the joint of tarsomeres 3&4 of the mid leg	0.186	0.028	0.134
Pale band at the joint of tarsomeres 2&3 of the hind leg	0.184	-0.029	0.083
Pale interruption of third main dark area of 1st vein	0.148	0.070	-0.006
Length of basal pale band on palpus	0.134	-0.113	-0.129
Length of median pale band on palpus	0.126	-0.117	0.078
Palpal index	-0.093	-0.057	-0.009
Pale band at the joint of tarsomeres 1&2 of the fore leg	0.054	0.017	0.032
Pale band at the joint of tarsomeres 1&2 of the mid leg	0.039	-0.131	0.065
Pale band at the joint of tarsomeres 3&4 of the fore leg	0.072	-0.126	0.125
Pale band at the joint of tarsomeres 2&3 of the mid leg	0.060	-0.123	0.092
Pre-sector pale spot	0.043	0.050	-0.010
Humeral pale spot	-0.106	-0.074	-0.182
Sector pale spot	0.058	0.040	0.150
Pale band at the joint of tarsomeres 2&3 of the fore leg	0.110	-0.025	0.141
Length of palpal segment I	0.081	0.127	-0.129
Pale band at the joint of tarsomeres 1&2 of the hind leg	-0.061	-0.055	0.101
Pale band at the joint of tarsomeres 3&4 of the hind leg	-0.016	-0.017	0.071

Note: Relative percentages of explained variance for component 1, 2 and 3 are 83.2%, 6.3% and 3.2%, respectively. The coefficients are sorted by decreasing magnitude of component 1. High loadings indicated in bold type