

**File S-II – Photos of dissected and mounted genitalia of mosquitoes.**



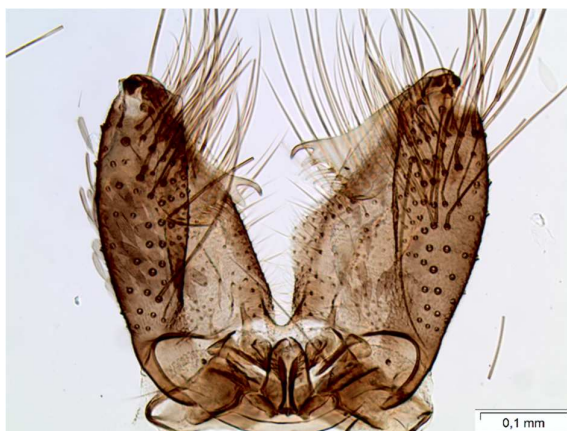
**Figure S-II 1.** Male mosquito genitalia *Ad. (Ady.) africana* (reference: EM 245, MZ092 g1.1, Mozambique). 200x magnification.



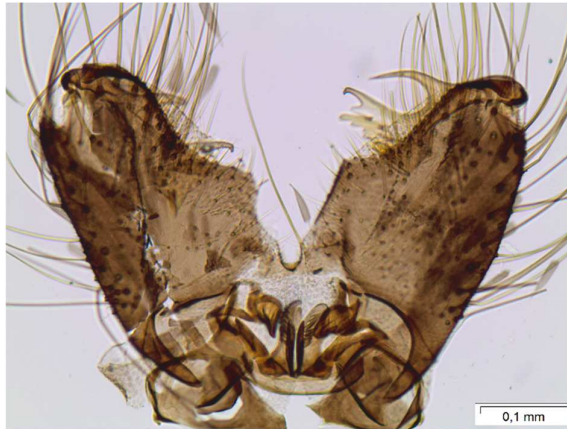
**Figure S-II 2.** Male mosquito genitalia *Ae. (Adm.) quasiunivittatus* (reference: EM 148, LAP289 m2, South Africa). 100x magnification.



**Figure S-II 3.** Male mosquito genitalia *Ae. (Adm.) dentatus* (reference: EM 158, KYA 243 e, South Africa). 100x magnification.



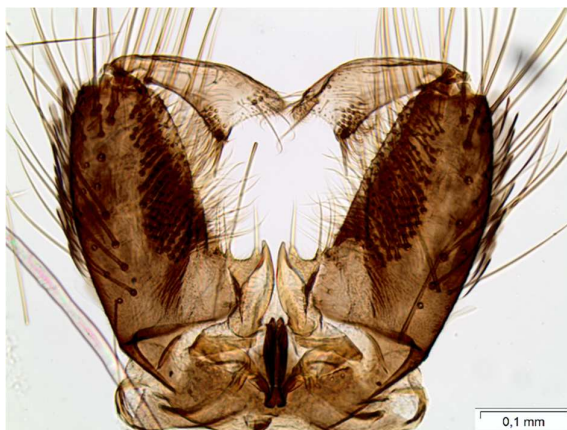
**Figure S-II 4.** Male mosquito genitalia *Ae. (Adm.) eritreae* (reference: EM 180, GAU104 p, South Africa). 100x magnification.



**Figure S-II 5.** Male mosquito genitalia *Ae. (Adm.) lesoni* (reference: A205 d2, South Africa). 100x magnification.



**Figure S-II 6.** Male mosquito genitalia *Ae. (Adm.) durbanensis* (reference: EM 176, KZN 012 g4, South Africa). 100x magnification.



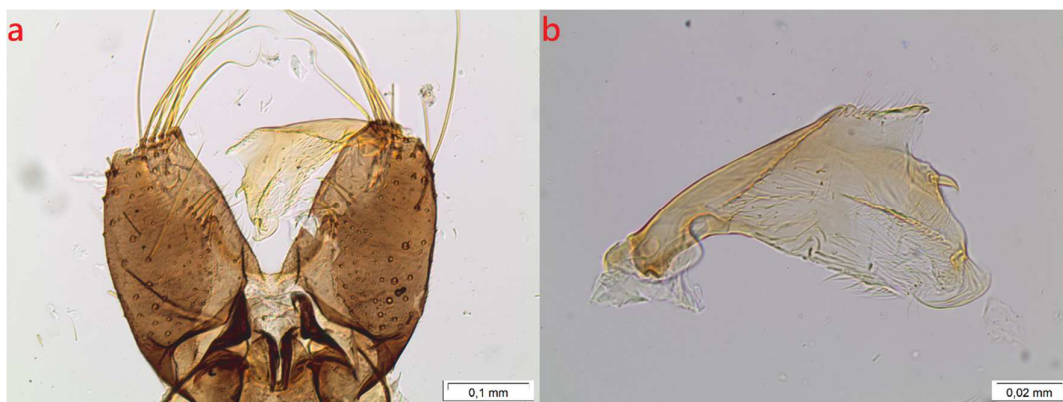
**Figure S-II 7.** Male mosquito genitalia *Ae. (Adm.) fowleri* (reference: EM 137, PTH 015, South Africa). 100x magnification.



**Figure S-II 8.** Male mosquito genitalia *Ae. (Adm.) hirsutus* (reference: EM 199, MAR 714 g1, South Africa). 100x magnification.



**Figure S-II 9.** Male mosquito genitalia *Ae. (Alb.) capensis* (reference: EM 146, LAP252 e, South Africa): a) 100x magnification, b) gonostylus, 400x magnification.



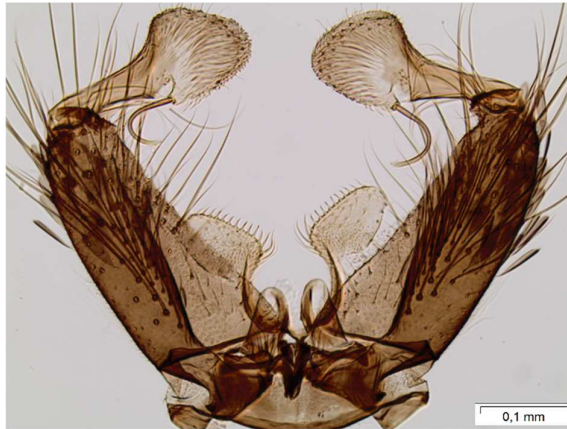
**Figure S-II 10.** Male mosquito genitalia *Ae. (Adm.) minutus* (reference: EM 200, PTH 005, South Africa): a) 100x magnification, b) gonostylus, 400x magnification.



**Figure S-II 11.** Male mosquito genitalia *Ae. (Dic.) fascipalpis* (reference: EM 162, KRU 159 e, South Africa). 100x magnification.



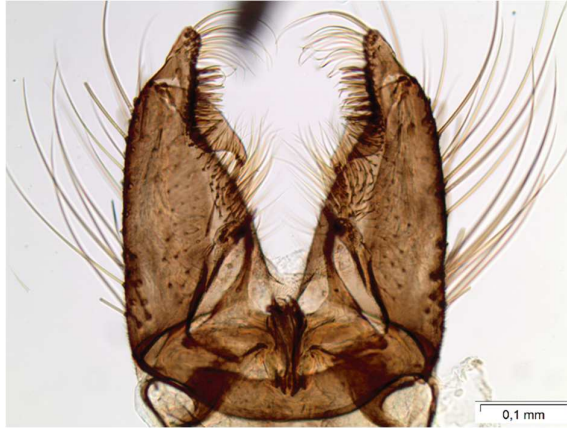
**Figure S-II 12.** Male mosquito genitalia *Ae. (Dic.) furcifer* (reference: LAP 157 k2, South Africa). 100x magnification.



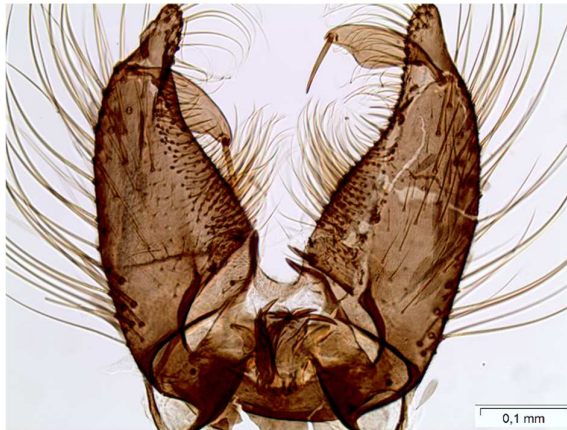
**Figure S-II 13.** Male mosquito genitalia *Ae. (Fre.) vittatus* (reference: MZ114 d2.2, Mozambique). 100x magnification.



**Figure S-II 14.** Male mosquito genitalia *Ae. (Muc.) mucidus* (reference: EM 153, MZ011 aa1, Mozambique): a) 40x magnification, b) 100x magnification.



**Figure S-II 15.** Male mosquito genitalia *Ae. (Neo.) circumluteolus* (reference: EM 128, PTH 004 a1, South Africa). 100x magnification.



**Figure S-II 16.** Male mosquito genitalia *Ae. (Neo.) mcintoshi* (reference: EM 183, MAR273 j2, South Africa). 100x magnification.



**Figure S-II 17.** Male mosquito genitalia *Ae. (Och.) caballus* (reference: EM 165, RPT 022 a2, South Africa). 100x magnification.



**Figure S-II 18.** Male mosquito genitalia *Ae. (Stg.) aegypti* (reference: EM 297, MZ116 a2.9, Mozambique). 100x magnification.



**Figure S-II 19.** Male mosquito genitalia *Ae. (Stg.) metallicus* (reference: EM 249, KRU 153 j, South Africa). 100x magnification.



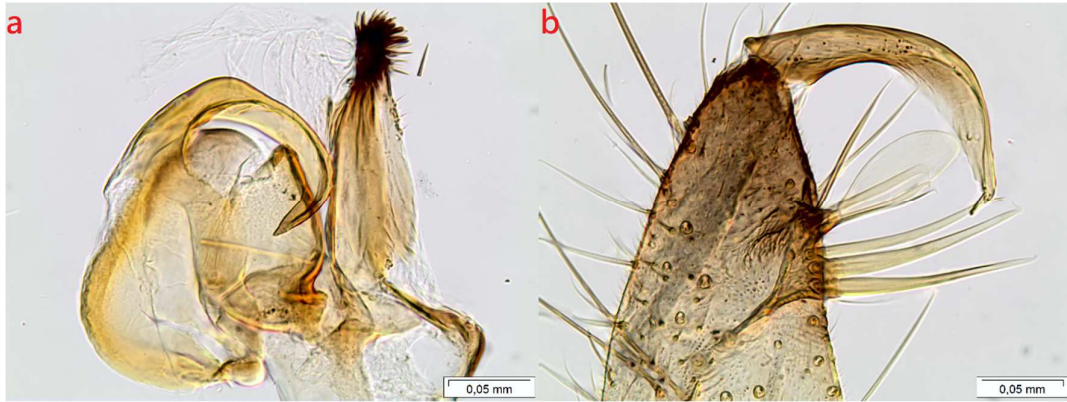
**Figure S-II 20.** Male mosquito genitalia *Ae. (Stg.) unilineatus* (reference: EM 082, KZN 210 e, South Africa). 100x magnification.



**Figure S-II 21.** Male mosquito genitalia *Er. quinquevittatus* (reference: EM 270, MZ010 a1, Mozambique). 100x magnification.



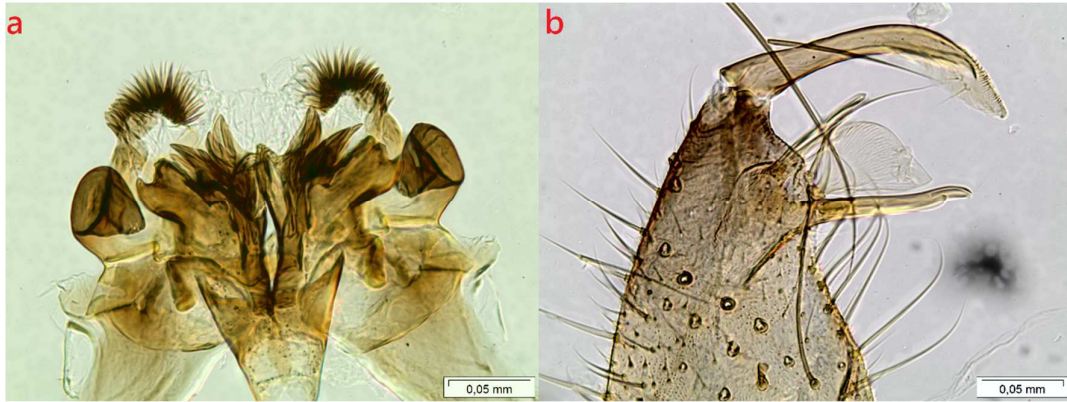
**Figure S-II 22.** Male mosquito genitalia *Er. subsimplicipes* (reference: EM 256, MZ114 c2.3, Mozambique). 100x magnification.



**Figure S-II 23.** Male mosquito genitalia *Cx. (Cux.) duttoni* (reference: EM 140, LAP238 s2, South Africa): a) phallosome (side view), b) gonocoxite. 200x magnification.



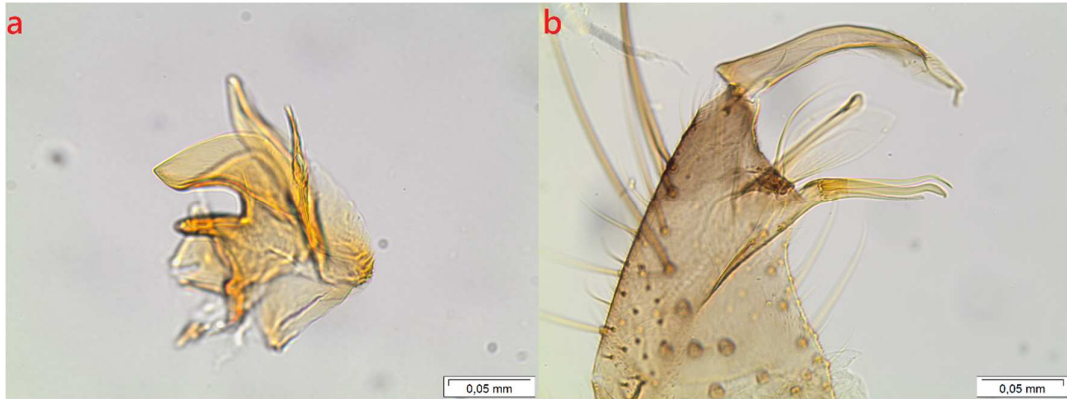
**Figure S-II 24.** Male mosquito genitalia *Cx. (Cux.) andersoni* (referencia: EM 031, KYA068 d4, South Africa): a) phallosome (ventral view), b) gonocoxite. 200x magnification.



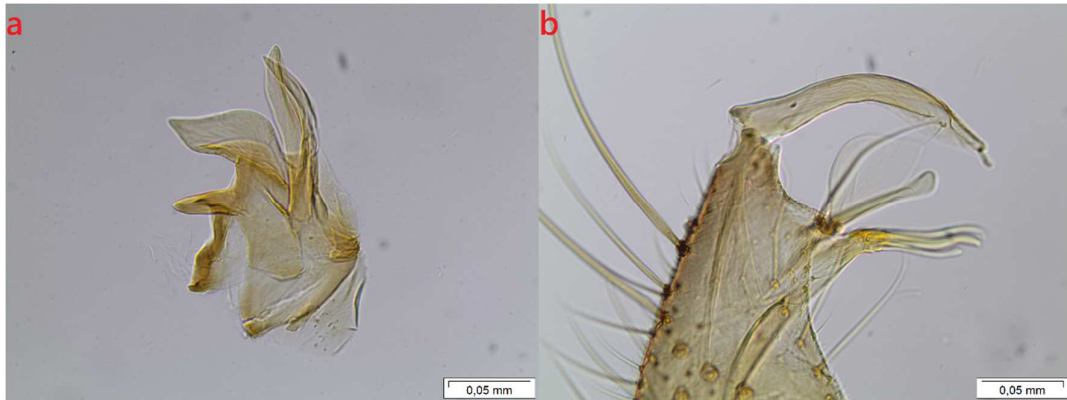
**Figure S-II 25.** Male mosquito genitalia *Cx. (Cux.) antennatus* (reference: EM 064, PTH 009 a1, South Africa): a) phallosome (ventral view), b) gonocoxite. 200x magnification.



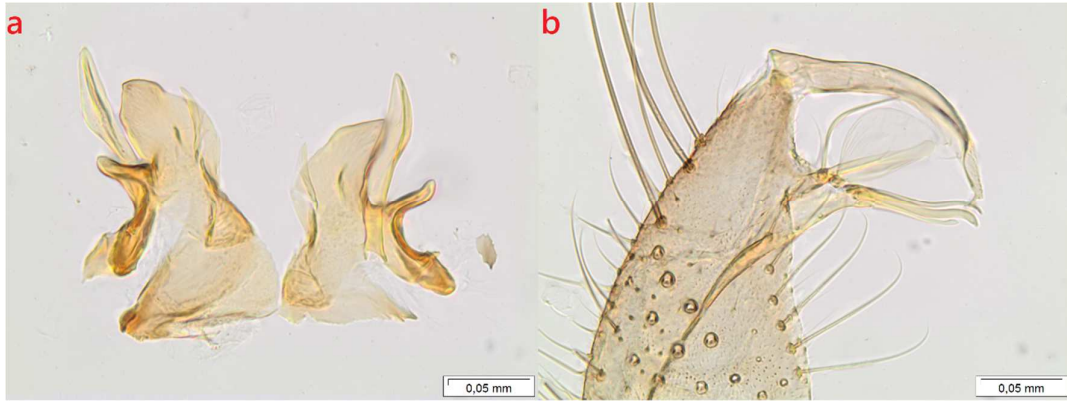
**Figure S-II 26.** Male mosquito genitalia *Cx. (Cux.) decens* (reference: EM 074, LAP272 r, South Africa): a) phallosome (ventral view), b) gonocoxite. 200x magnification.



**Figure S-II 27.** Male mosquito genitalia *Cx. (Cux.) univittatus* (reference: EM 021, KZN 034 c1, South Africa): a) phallosome (side view), b) gonocoxite. 200x magnification.



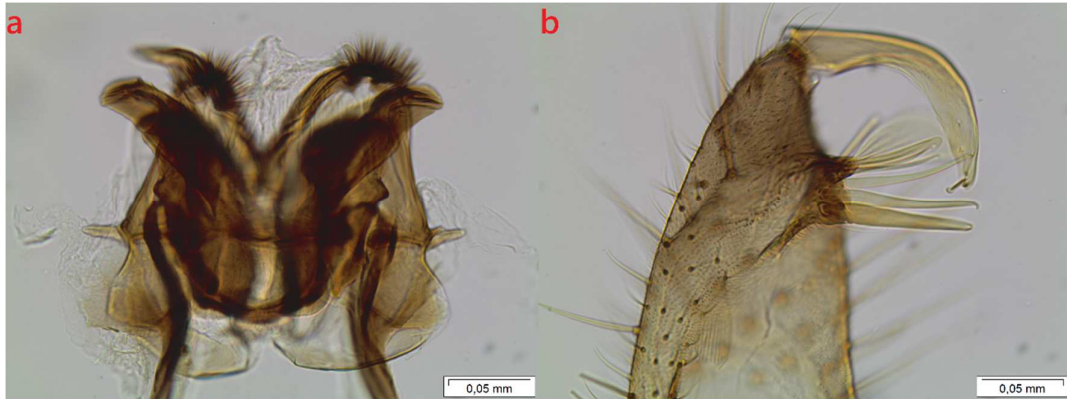
**Figure S-II 28.** Male mosquito genitalia *Cx. (Cux.) neavei* (reference: EM 016, MZ 119 c2.1, South Africa): a) phallosome (side view), b) gonocoxite. 200x magnification.



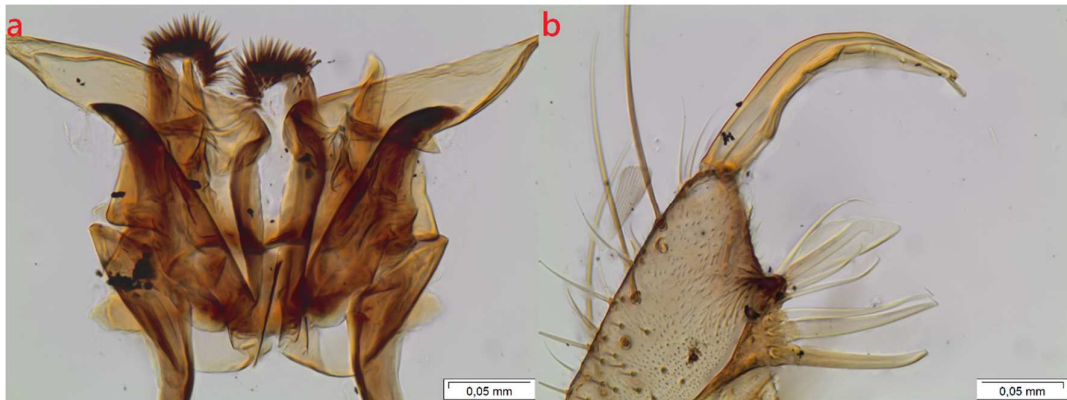
**Figure S-II 29.** Male mosquito genitalia *Cx. (Cux.) perexiguus* (reference: EM 095, PTH 002 a1, South Africa): a) phallosome (side view), b) gonocoxite. 200x magnification.



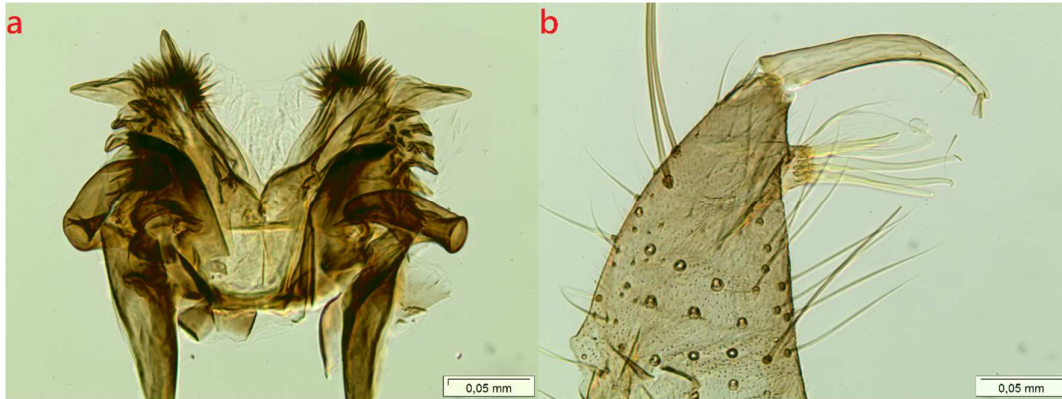
**Figure S-II 30.** Male mosquito genitalia *Cx. (Cux.) telesilla* (reference: PTH 003 a3, South Africa): a) phallosome (ventral view), b) gonocoxite. 200x magnification.



**Figure S-II 31.** Male mosquito genitalia *Cx. (Cux.) pipiens* (reference: EM 304, KYA082 f2, South Africa): a) phallosome (ventral view), b) gonocoxite. 200x magnification.



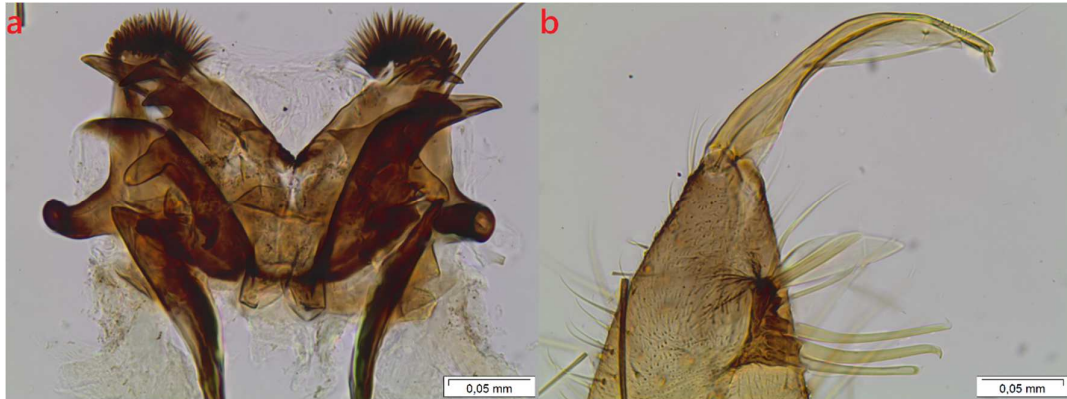
**Figure S-II 32.** Male mosquito genitalia *Cx. (Cux.) quinquefasciatus* (reference: EM 315, MZ125 HBI.1, Mozambique): a) phallosome (ventral view), b) gonocoxite. 200x magnification.



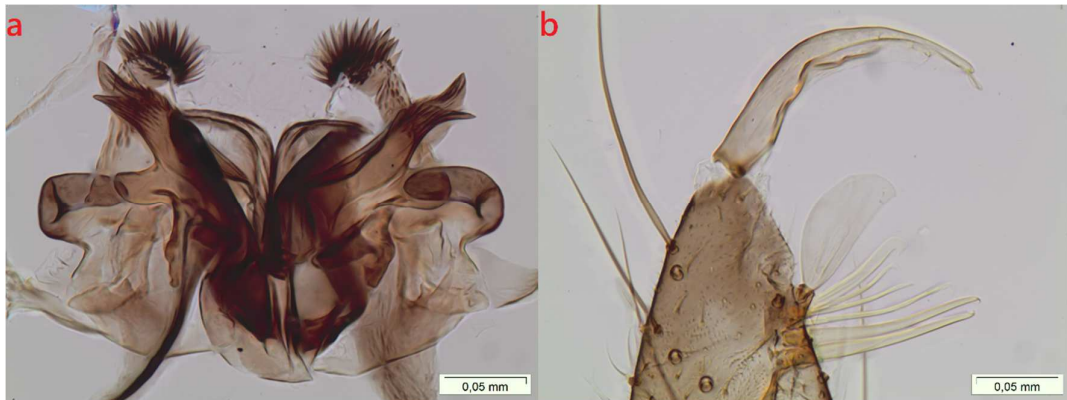
**Figure S-II 33.** Male mosquito genitalia *Cx. (Cux.) simpsoni* (reference: EM 033, MAK 003 s2, South Africa): a) phallosome (ventral view), b) gonocoxite. 200x magnification.



**Figure S-II 34.** Male mosquito genitalia *Cx. (Cux.) argenteopunctatus* (reference: EM 159, LAP238 y2, South Africa): a) phallosome (ventral view), b) gonocoxite. 200x magnification.



**Figure S-II 35.** Male mosquito genitalia *Cx. (Cux.) theileri* (reference: EM 073, GAU088 f1, South Africa): a) phallosome (ventral view), b) gonocoxite. 200x magnification.



**Figure S-II 36.** Male mosquito genitalia *Cx. (Cux.) trifilatus* (reference: EM 091, SA 059 e2.5, South Africa): a) phallosome (ventral view), b) gonocoxite. 200x magnification.



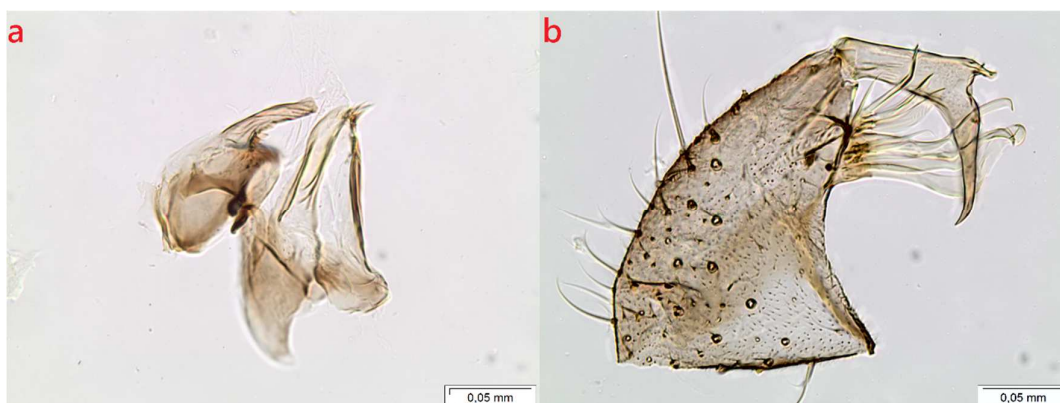
**Figure S-II 37.** Male mosquito genitalia *Cx. (Cux.) tritaeniorhynchus* (reference: EM 157, KZN 210 a, South Africa): a) phallosome (side view), b) gonocoxite. 200x magnification.



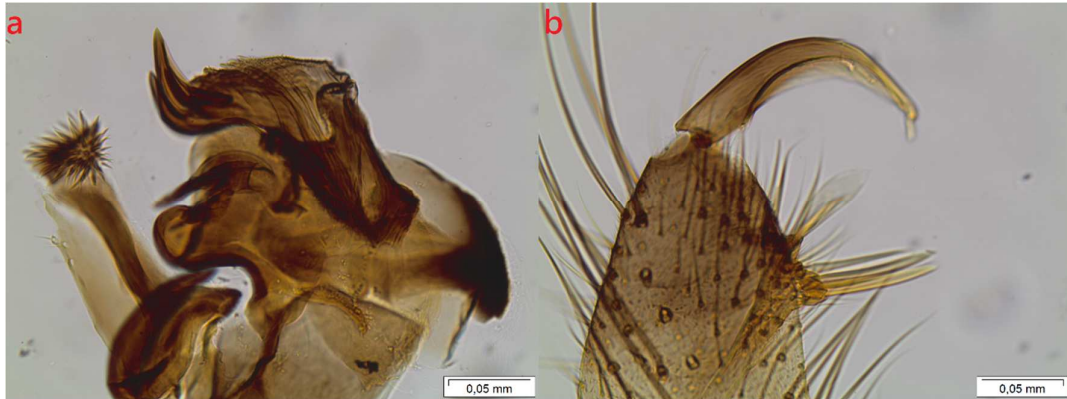
**Figure S-II 38.** Male mosquito genitalia *Cx. (Cui.) cinereus* (reference: EM 111, MZ121 b2.1, Mozambique): a) phallosome (side view), b) gonocoxite, c) paraproct, 200x magnification, d) Silks of the third segment of the palp. 100x magnification.



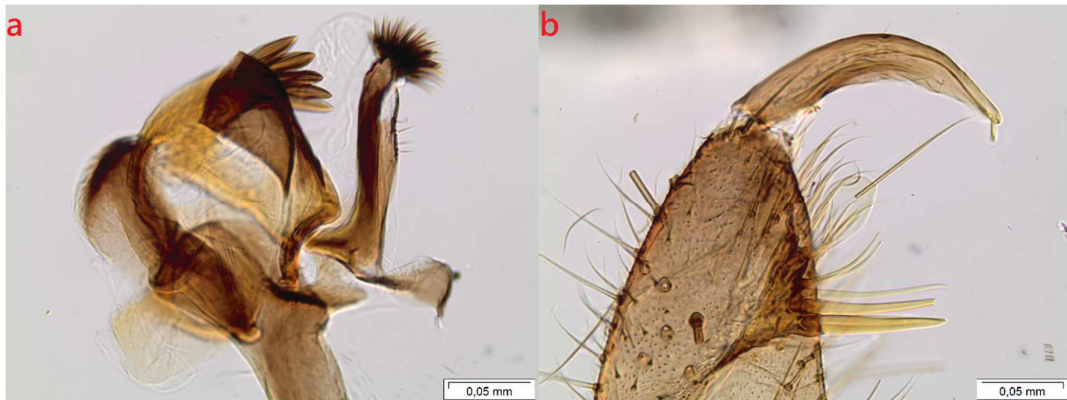
**Figure S-II 39.** Male mosquito genitalia *Cx. (Cui.) nebulosus* (reference: EM 112, MZ115 b5.2, Mozambique): a) phallosome (side view), b) gonocoxite, c) paraproct, 200x magnification, d) Silks of the third segment of the palp. 100x magnification.



**Figure S-II 40.** Male mosquito genitalia *Cx. (Eum.) inconspicuus* (reference: EM 142, LAP233 t, South Africa): a) phallosome (side view), b) gonocoxite. 200x magnification.



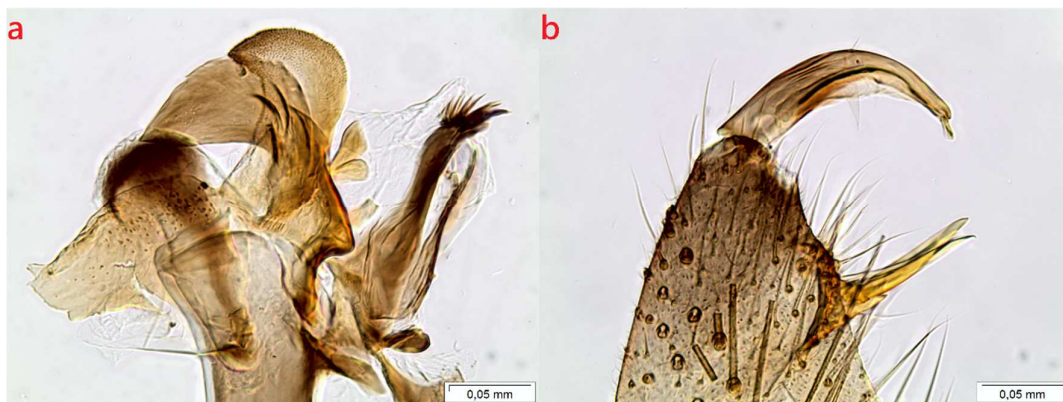
**Figure S-II 41.** Male mosquito genitalia *Cx. (Ocu.) annulioris* (reference: EM 105, MZ119 a2.1, Mozambique): a) phallosome (side view), b) gonocoxite. 200x magnification.



**Figure S-II 42.** Male mosquito genitalia *Cx. (Ocu.) poicilipes* (reference: EM 069, MAN 709 o, South Africa): a) phallosome (side view), b) gonocoxite. 200x magnification.



**Figure S-II 43.** Male mosquito genitalia *Cx. (Ocu.) infula* (reference: EM 152, MZ056 g 1 23, Mozambique): a) phallosome (side view), b) gonocoxite. 200x magnification.



**Figure S-II 44.** Male mosquito genitalia *Cx. (Ocu.) bitaeniorhynchus* (referencia: EM 124, LAP232 t, South Africa): a) phallosome (side view), b) gonocoxite. 200x magnification.



**Figure S-II 45.** Male mosquito genitalia *Lt. (Mlt.) tigripes* (reference: EM 055, MAR264 j, South Africa): a) phallosome (side view), b) gonocoxite. 100x and 200x magnification.



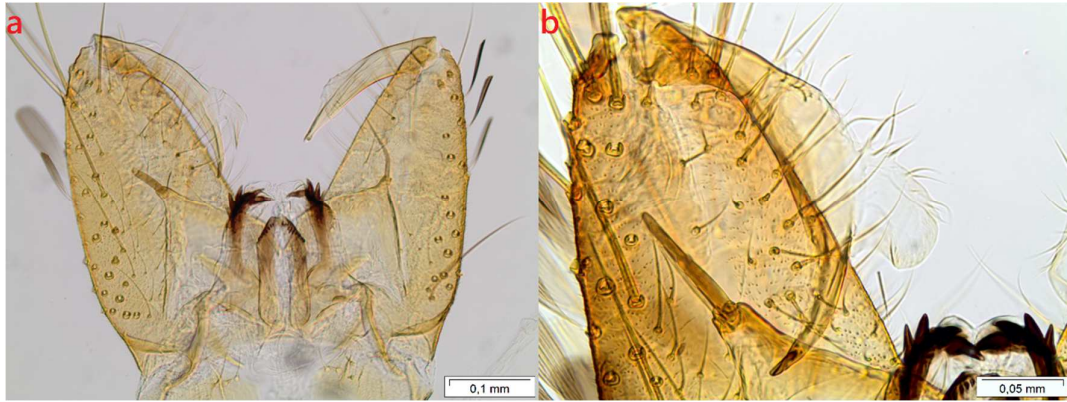
**Figure S-II 46.** Male mosquito genitalia *Fi. uniformis* (reference: EM 252, LAP263 q, South Africa). 200x magnification.



**Figure S-II 47.** Male mosquito genitalia *Mi. (Mim.) mimomyiaformis* (reference: EM 226, LAP232 x1, South Africa). 100x magnification.



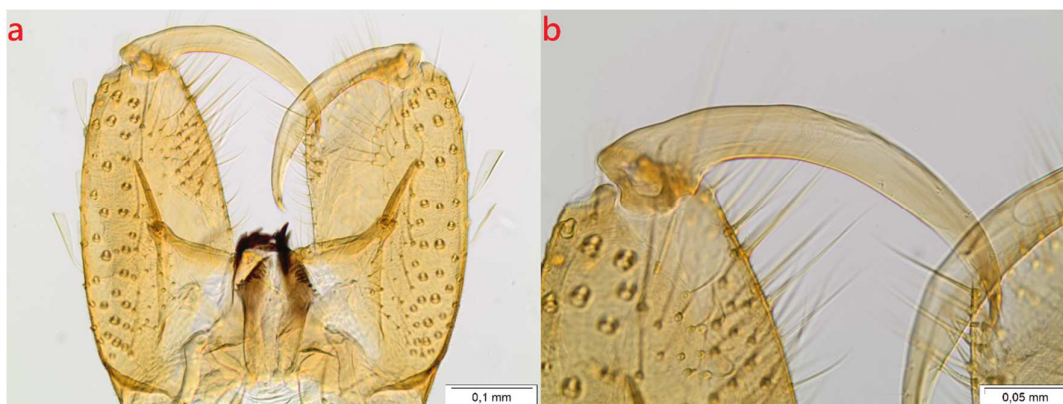
**Figure S-II 48.** Male mosquito genitalia *Mi. (Mim.) hispida* (reference: EM 277, LAP281 1, South Africa). 100x magnification.



**Figure S-II 49.** Male mosquito genitalia *Cq. (Coq.) fuscopennata* (reference: (a) EM 205, LAP289 n2, (b) EM 202 LAP272 q, South Africa). 100x and 200x magnification.



**Figure S-II 50.** Male mosquito genitalia *Cq. (Coq.) metallica* (reference: EM 253, MZ012 L1, Mozambique). 100x magnification.



**Figure S-II 51.** Male mosquito genitalia *Cq. (Coq.) chrysosoma* (reference: PTH 016 a3, South Africa): a) gonocoxites 100x magnification, b) gonostylus 200x magnification.



**Figure S-II 52.** Male (a) and female (b) mosquitoes genitalia *Ma. (Mnd.) africana* (reference: a) EM 007, MZ012 j7, Mozambique and b) MZ011 a1, Mozambique). 100x and 40x magnification.



**Figure S-II 53.** Male (a) and female (b) mosquitoes genitalia *Ma. (Mnd.) uniformis* (reference: a) EM 210, MPA 005 j, South Africa and b) MZ011 ae, Mozambique). 100x and 40x magnification.



**Figure S-II 54.** Male mosquito genitalia *Ur. (Pfc.) mashonaensis* (reference: EM 213, LAP238 af, South Africa). 200x magnification.



**Figure S-II 55.** Male mosquito genitalia *Ur. (Ura.) alboabdominalis* (reference: EM 214, LAP272 u, South Africa). 200x magnification.

## Other mosquito genitalia obtained in this study



**Figure S-II 56.** Male mosquito genitalia *Ma. africana* (reference: EM 008, Mozambique). 100x magnification.



**Figure S-II 57.** Male mosquito genitalia *Ma. africana* (reference: EM 010, Mozambique). 100x magnification.



**Figure S-II 58.** Male mosquito genitalia *Ma. africana* (reference: EM 011, Mozambique). 100x magnification.



**Figure S-II 59.** Male mosquito genitalia *Cx. univittatus* (reference: EM 017, South Africa). 200x magnification.



**Figure S-II 60.** Male mosquito genitalia *Cx. simpsoni* (reference: EM 024, Mozambique). 200x magnification.



**Figure S-II 61.** Male mosquito genitalia *Cx. simpsoni* (reference: EM 025, Mozambique). 200x magnification.



**Figure S-II 62.** Male mosquito genitalia *Cx. simpsoni* (reference: EM 026, Mozambique). 200x magnification.



**Figure S-II 63.** Male mosquito genitalia *Cx. simpsoni* (reference: EM 032, South Africa). 200x magnification.



**Figure S-II 64.** Male mosquito genitalia *Cx. perexiguus* (reference: EM 040, Mozambique). 200x magnification.



**Figure S-II 65.** Male mosquito genitalia *Cx. neavei* (reference: EM 041, Mozambique). 200x magnification.



**Figure S-II 66.** Male mosquito genitalia *Cx. univittatus* (reference: EM 045, South Africa). 200x magnification.



**Figure S-II 67.** Male mosquito genitalia *Lt. tigris* (reference: EM 056, South Africa). 100x magnification.



**Figure S-II 68.** Male mosquito genitalia *Cx. antennatus* (reference: EM 063, South Africa). 200x magnification.



**Figure S-II 69.** Male mosquito genitalia *Cx. poicilipes* (reference: EM 065, Mozambique). 200x magnification.



**Figure S-II 70.** Male mosquito genitalia *Cx. poicilipes* (reference: EM 066, Mozambique). 200x magnification.



**Figure S-II 71.** Male mosquito genitalia *Cx. theileri* (reference: EM 075, South Africa). 200x magnification.



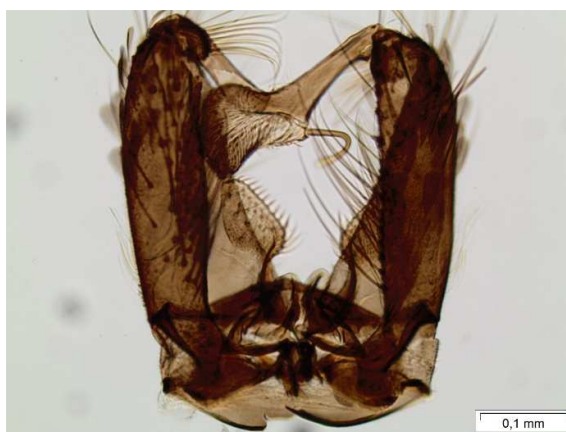
**Figure S-II 72.** Male mosquito genitalia *Ae. unilineatus* (reference: EM 077, South Africa). 100x magnification.



**Figure S-II 73.** Male mosquito genitalia *Ae. unilineatus* (reference: EM 078, South Africa). 100x magnification.



**Figure S-II 74.** Male mosquito genitalia *Ae. vittatus* (reference: EM 083, Mozambique). 100x magnification.



**Figure S-II 75.** Male mosquito genitalia *Ae. vittatus* (reference: EM 085, South Africa). 100x magnification.



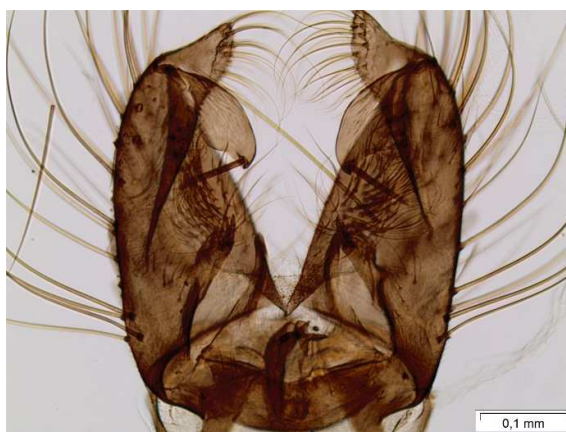
**Figure S-II 76.** Male mosquito genitalia *Cx. trifilatus* (reference: EM 090, South Africa). 200x magnification.



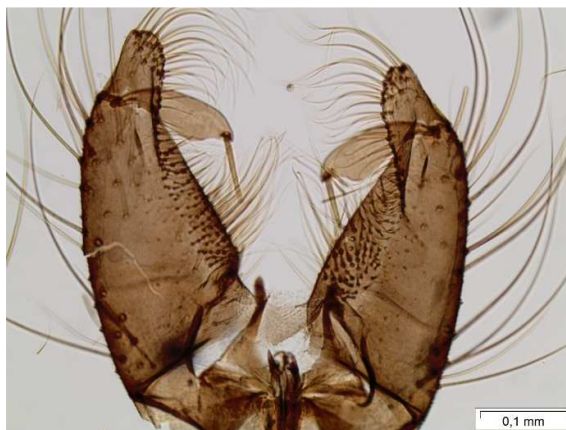
**Figure S-II 77.** Male mosquito genitalia *Cx. univittatus* (reference: EM 094, South Africa). 200x magnification.



**Figure S-II 78.** Male mosquito genitalia *Cx. perexiguus* (reference: EM 096, South Africa). 200x magnification.



**Figure S-II 79.** Male mosquito genitalia *Ae. mcintoshi* (reference: EM 100, South Africa). 100x magnification.



**Figure S-II 80.** Male mosquito genitalia *Ae. mcintoshi* (reference: EM 101, South Africa). 100x magnification.



**Figure S-II 81.** Male mosquito genitalia *Cx. annulioris* (reference: EM 106, South Africa). 200x magnification.



**Figure S-II 82.** Male mosquito genitalia *Cx. annulioris* (reference: EM 107, South Africa). 200x magnification.



**Figure S-II 83.** Male mosquito genitalia *Cx. telesilla* (reference: EM 117, South Africa). 200x magnification.



**Figure S-II 84.** Male mosquito genitalia *Cx. telesilla* (reference: EM 119, South Africa). 200x magnification.



**Figure S-II 85.** Male mosquito genitalia *Cx. telesilla* (reference: EM 120, South Africa). 200x magnification.



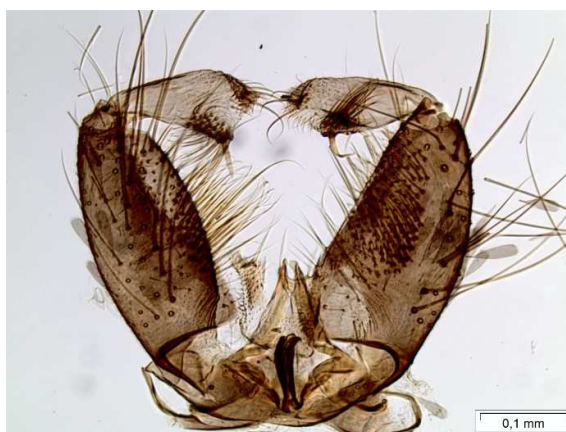
**Figure S-II 86.** Male mosquito genitalia *Ae. circumluteolus* (reference: EM 129, South Africa). 100x magnification.



**Figure S-II 87.** Male mosquito genitalia *Ae. circumluteolus* (reference: EM 130, South Africa). 100x magnification.



**Figure S-II 88.** Male mosquito genitalia *Ae. circumluteolus* (reference: EM 133, South Africa). 100x magnification.



**Figure S-II 89.** Male mosquito genitalia *Ae. fowleri* (reference: EM 138, South Africa). 100x magnification.



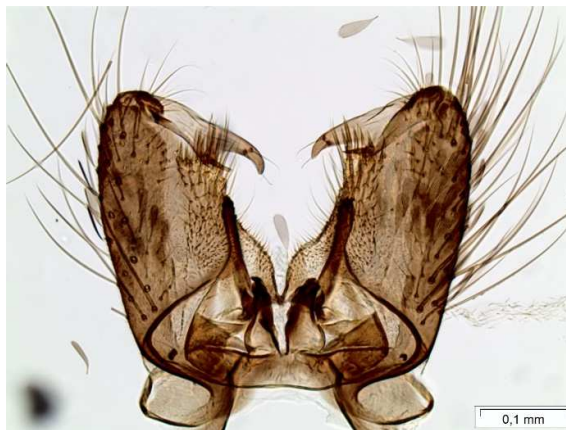
**Figure S-II 90.** Male mosquito genitalia *Cx. duttoni* (reference: EM 139, Mozambique). 200x magnification.



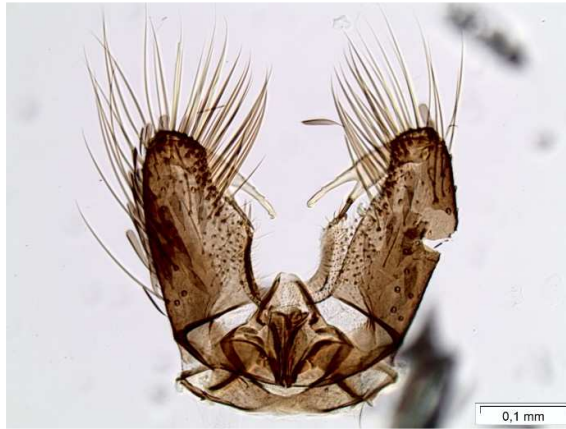
**Figure S-II 91.** Male mosquito genitalia *Cx. duttoni* (reference: EM 141, South Africa). 200x magnification.



**Figure S-II 92.** Male mosquito genitalia *Cx. inconspicuus* (reference: EM 143, South Africa). 200x magnification.



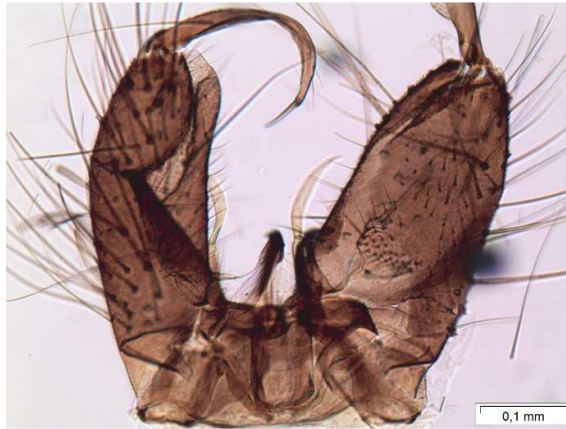
**Figure S-II 93.** Male mosquito genitalia *Ae. quasiunivittatus* (reference: EM 147, South Africa). 100x magnification.



**Figure S-II 94.** Male mosquito genitalia *Ae. fascipalpis* (reference: EM 161, South Africa). 100x magnification.



**Figure S-II 95.** Male mosquito genitalia *Ae. furcifer* (reference: EM 163, South Africa). 100x magnification.



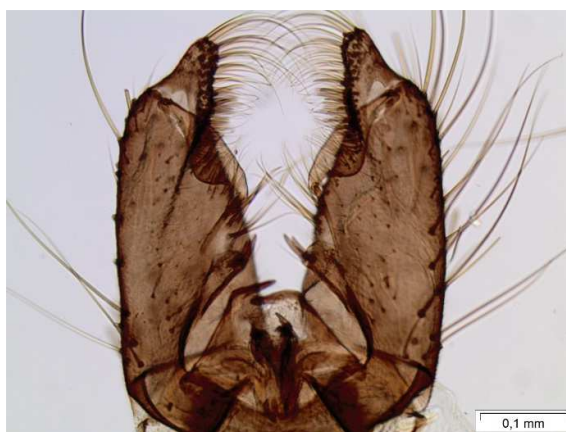
**Figure S-II 96.** Male mosquito genitalia *Ae. caballus* (reference: EM 164, South Africa). 100x magnification.



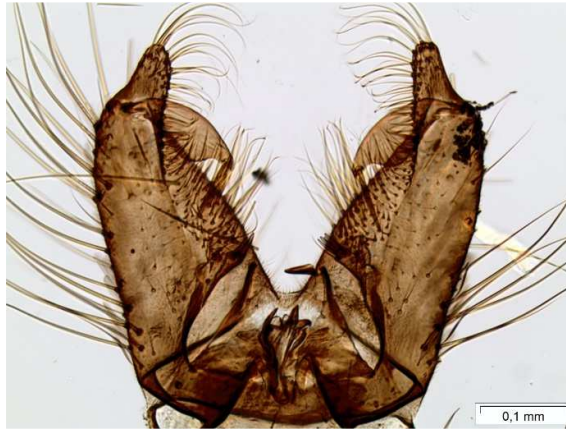
**Figure S-II 97.** Male mosquito genitalia *Ae. durbanensis* (reference: EM 174, South Africa). 200x magnification.



**Figure S-II 98.** Male mosquito genitalia *Ae. durbanensis* (reference: EM 175, South Africa). 100x magnification.



**Figure S-II 99.** Male mosquito genitalia *Ae. mcintoshi* (reference: EM 181, South Africa). 100x magnification.



**Figure S-II 100.** Male mosquito genitalia *Ae. mcintoshi* (reference: EM 185, South Africa). 100x magnification.



**Figure S-II 101.** Male mosquito genitalia *Cq. fuscopennata* (reference: EM 201, South Africa). 100x magnification.



**Figure S-II 102.** Male mosquito genitalia *Cq. fuscopennata* (reference: EM 203, South Africa). 200x magnification.



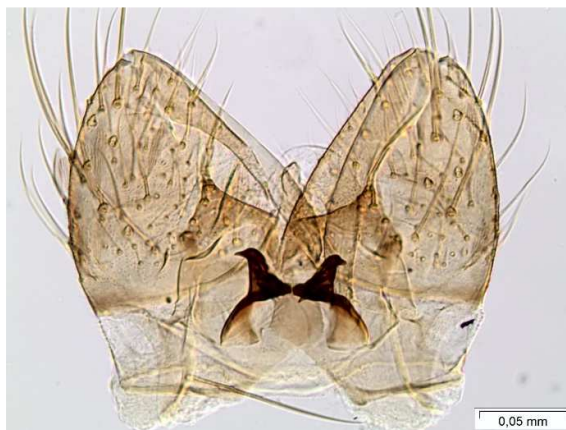
**Figure S-II 103.** Male mosquito genitalia *Cq. fuscopennata* (reference: EM 204, South Africa). 200x magnification.



**Figure S-II 104.** Male mosquito genitalia *Ma. uniformis* (reference: EM 209, South Africa). 100x magnification.



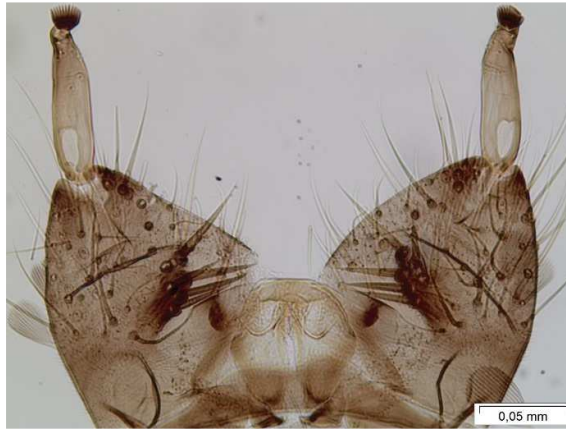
**Figure S-II 105.** Male mosquito genitalia *Ma. africana* (reference: EM 211, Mozambique). 100x magnification.



**Figure S-II 106.** Male mosquito genitalia *Ur. mashonaensis* (reference: EM 212, South Africa). 200x magnification.



**Figure S-II 107.** Male mosquito genitalia *Ae. hirsutus* (reference: EM 234, South Africa). 100x magnification.



**Figure S-II 108.** Male mosquito genitalia *Ad. africana* (reference: EM 246, Mozambique). 200x magnification.



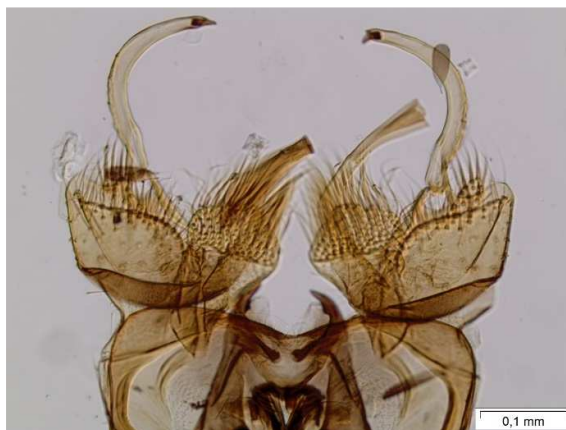
**Figure S-II 109.** Male mosquito genitalia *Ad. africana* (reference: EM 247, Mozambique). 100x magnification.



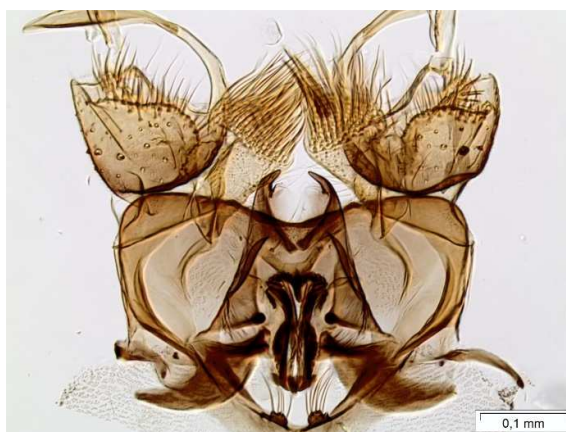
**Figure S-II 110.** Male mosquito genitalia *Cq. chrysosoma* (reference: EM 250, South Africa). 100x magnification.



**Figure S-II 111.** Male mosquito genitalia *Cq. chrysosoma* (reference: EM 251, South Africa). 100x magnification.



**Figure S-II 112.** Male mosquito genitalia *Er. subsimplicipes* (reference: EM 254, Mozambique). 100x magnification.



**Figure S-II 113.** Male mosquito genitalia *Er. subsimplicipes* (reference: EM 255, Mozambique). 100x magnification.



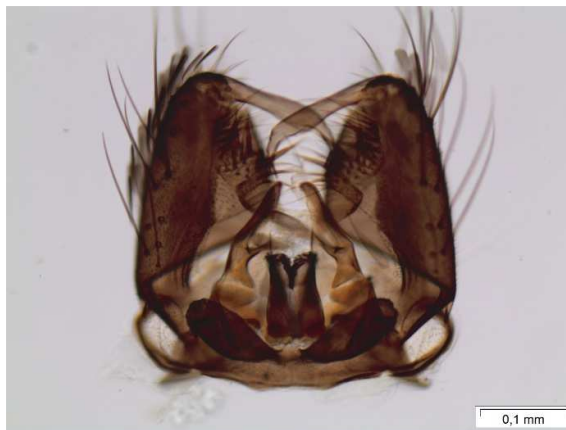
**Figure S-II 114.** Male mosquito genitalia *Cx. perexiguus* (reference: EM 272, South Africa). 200x magnification.



**Figure S-II 115.** Male mosquito genitalia *Cx. inconspicuus* (reference: EM 275, South Africa). 200x magnification.



**Figure S-II 116.** Male mosquito genitalia *Ur. mashonaensis* (reference: EM 279, South Africa). 200x magnification.



**Figure S-II 117.** Male mosquito genitalia *Ae. aegypti* (reference: EM 293, Angola). 100x magnification.



**Figure S-II 118.** Male mosquito genitalia *Ae. aegypti* (reference: EM 298, South Africa). 100x magnification.



**Figure S-II 119.** Male mosquito genitalia *Ae. aegypti* (reference: EM 299, South Africa). 100x magnification.



**Figure S-II 120.** Male mosquito genitalia *Cx. pipiens* (reference: EM 300, Mozambique). 200x magnification.



**Figure S-II 121.** Male mosquito genitalia *Cx. pipiens* (reference: EM 301, South Africa). 200x magnification.



**Figure S-II 122.** Male mosquito genitalia *Cx. pipiens* (reference: EM 302, South Africa). 200x magnification.



**Figure S-II 123.** Male mosquito genitalia *Cx. pipiens* (reference: EM 303, South Africa). 200x magnification.



**Figure S-II 124.** Male mosquito genitalia *Cx. pipiens* (reference: EM 305, South Africa). 200x magnification.



**Figure S-II 125.** Male mosquito genitalia *Cx. pipiens* (reference: EM 306, South Africa). 200x magnification.



**Figure S-II 126.** Male mosquito genitalia *Cx. quinquefasciatus* (reference: EM 307, Angola). 200x magnification.



**Figure S-II 127.** Male mosquito genitalia *Cx. quinquefasciatus* (reference: EM 308, Angola). 200x magnification.



**Figure S-II 128.** Male mosquito genitalia *Cx. quinquefasciatus* (reference: EM 309, Angola). 200x magnification.



**Figure S-II 129.** Male mosquito genitalia *Cx. quinquefasciatus* (reference: EM 311, Angola). 200x magnification.



**Figure S-II 130.** Male mosquito genitalia *Cx. quinquefasciatus* (reference: EM 312, Angola). 200x magnification.



**Figure S-II 131.** Male mosquito genitalia *Cx. quinquefasciatus* (reference: EM 313, Mozambique). 200x magnification.



**Figure S-II 132.** Male mosquito genitalia *Cx. quinquefasciatus* (reference: EM 314, Mozambique). 200x magnification.



**Figure S-II 133.** Male mosquito genitalia *Cx. quinquefasciatus* (reference: EM 316, Mozambique). 100x magnification.



**Figure S-II 134.** Male mosquito genitalia *Cx. quinquefasciatus* (reference: EM 319, Mozambique). 200x magnification.



**Figure S-II 135.** Male mosquito genitalia *Cx. quinquefasciatus* (reference: EM 320, South Africa). 100x magnification.



**Figure S-II 136.** Male mosquito genitalia *Cx. quinquefasciatus* (reference: EM 322, South Africa). 200x magnification.



**Figure S-II 137.** Male mosquito genitalia *Cx. quinquefasciatus* (reference: EM 323, South Africa). 200x magnification.