Supplemental Material for A computational lens for sexual-stage transmission, reproduction, fitness and kinetics in *Plasmodium falciparum*

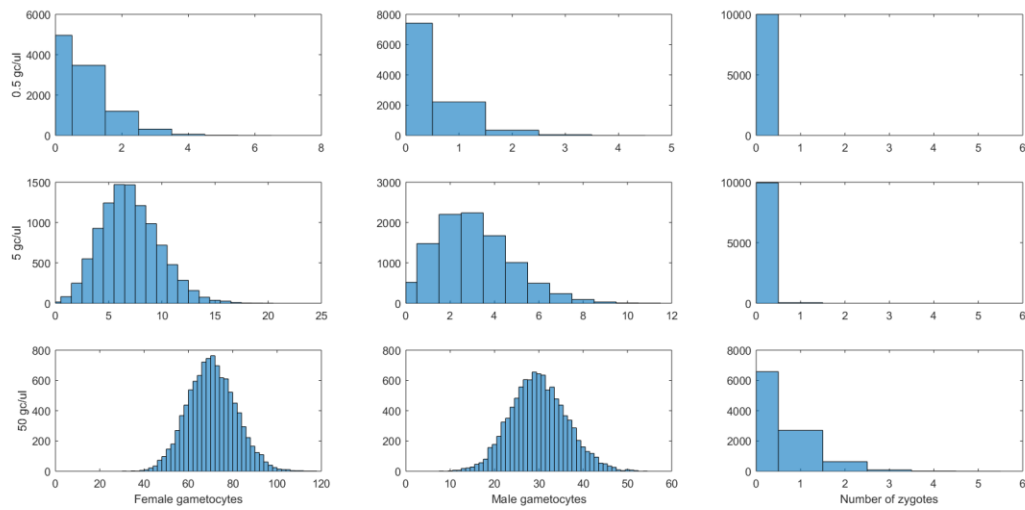Mara K. N. Lawniczak and Philip A. Eckhoff

Figure S1: Histograms for female gametocytes, male gametocytes, and zygotes for Poisson draws with male gamete bloodmeal coverage of 0.0001 (black series in Figure 2).
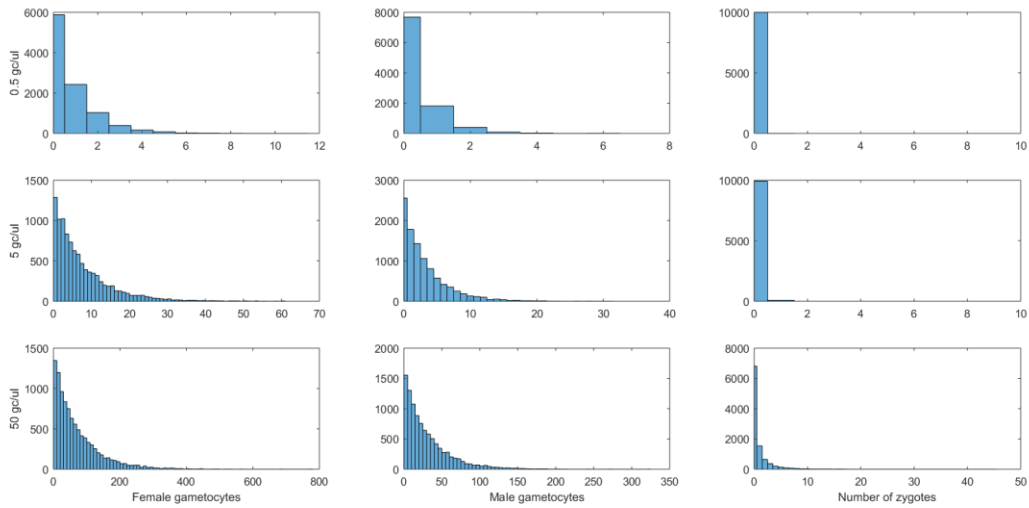
Figure S2: Histograms for female gametocytes, male gametocytes, and zygotes for negative binomial draws with male gamete bloodmeal coverage of 0.0001 (blue series in Figure 2).
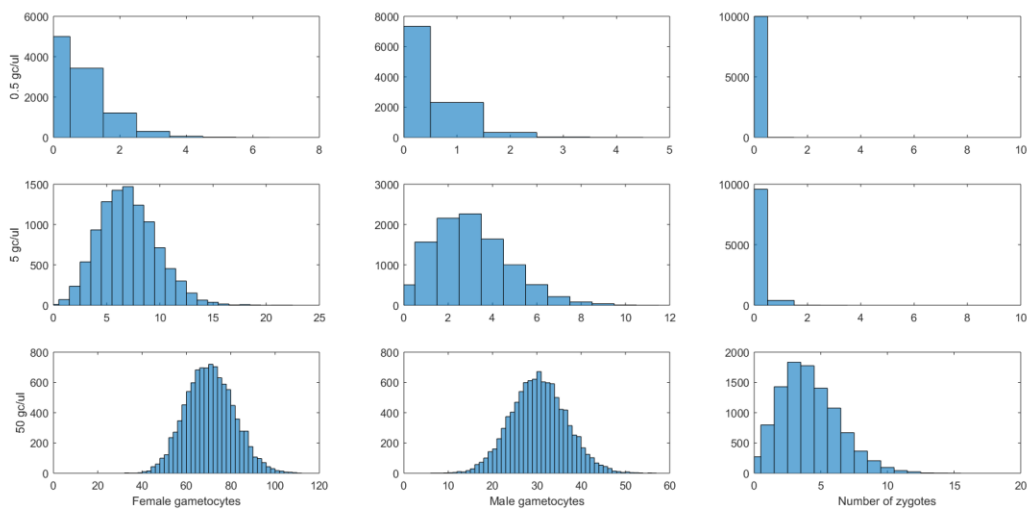

Figure S3: Histograms for female gametocytes, male gametocytes, and zygotes for Poisson draws with male gamete bloodmeal coverage of 0.001 (green series in Figure 2).
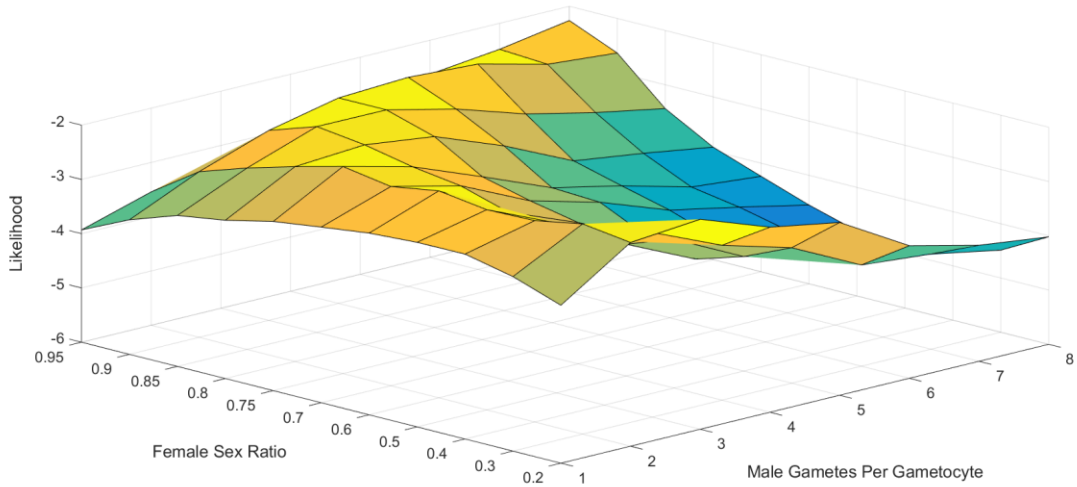
2

Figure S4: Varying female sex ratio versus male gametes per gametocyte for the best fitting model (k=0.6, coverage=0.004, blue-green in Figure 4) shows a likelihood ridge starting at 2 gametes per gametocyte for moderate sex ratios and increasing as the female sex ratio increases.
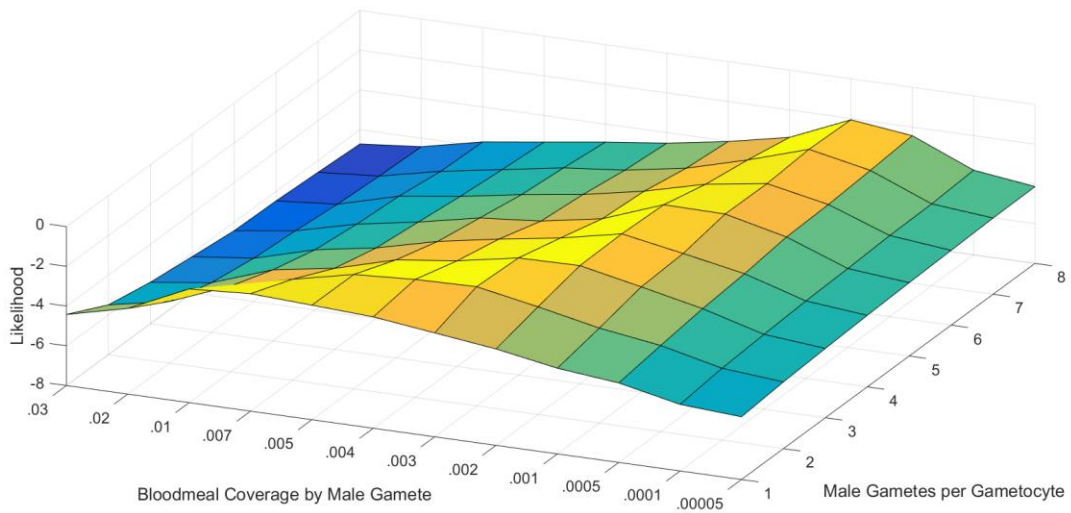

Figure S5: Varying bloodmeal coverage versus male gametes per gametocyte for the varying-k best fit in Figure 4 (orange). As male gametes per gametocyte increases, the required bloodmeal coverage by male gamete to achieve the best fit decreases approximately proportionally.