

Figure S1:

619 **Figure S1** Cytoplasmic polymorphism with multiple mitochondria per individual and the shape of male
 620 and female fitness functions is given by a linear function (additive). The model predicts polymorphism
 621 to be slightly less likely in comparison to the haploid model (dashed lines). This is because this model
 622 uses a conservative cut-off point of 0.05 to define polymorphism. Parameters: $M = 200$, $\mu = 1 \times 10^{-5}$.

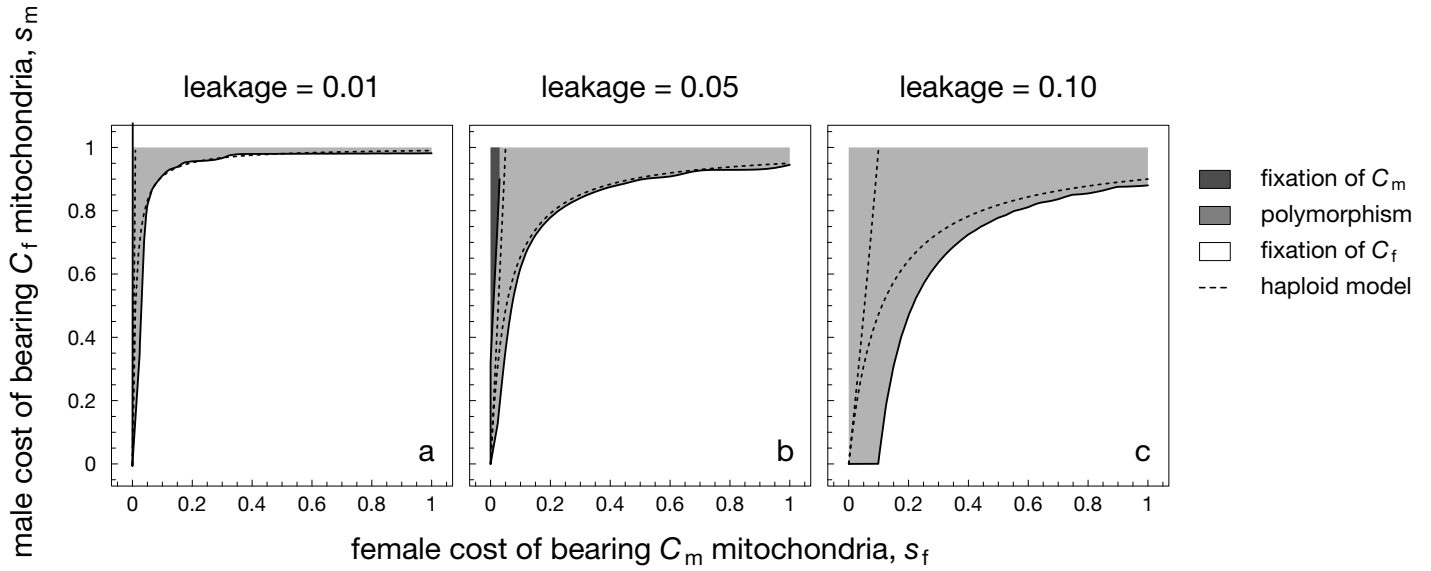


Figure S2:

623 **Figure S2** Cytoplasmic polymorphism when multiple mitochondria per individual are present and the
 624 shape of male and female fitness functions is given by a sigmoidal function (see Figure 2D). The region
 625 in which a cytoplasmic polymorphism occurs is similar relative to the haploid model (dashed lines). The
 626 function of the sigmoidal is given by $w_f = 1 - s_f + s_f \exp[-k(M-m)/M] / \{1 + \exp[-k(n = M-m)/M]\}$
 627 and $w_m = 1 - s_m + s_m \exp[k(M-m)/M] / \{1 + \exp[k(M-m)/M]\}$, where $k = 0.1$. Parameters: $M = 200$,
 628 $\mu = 1 \times 10^{-5}$, $B = 200$.

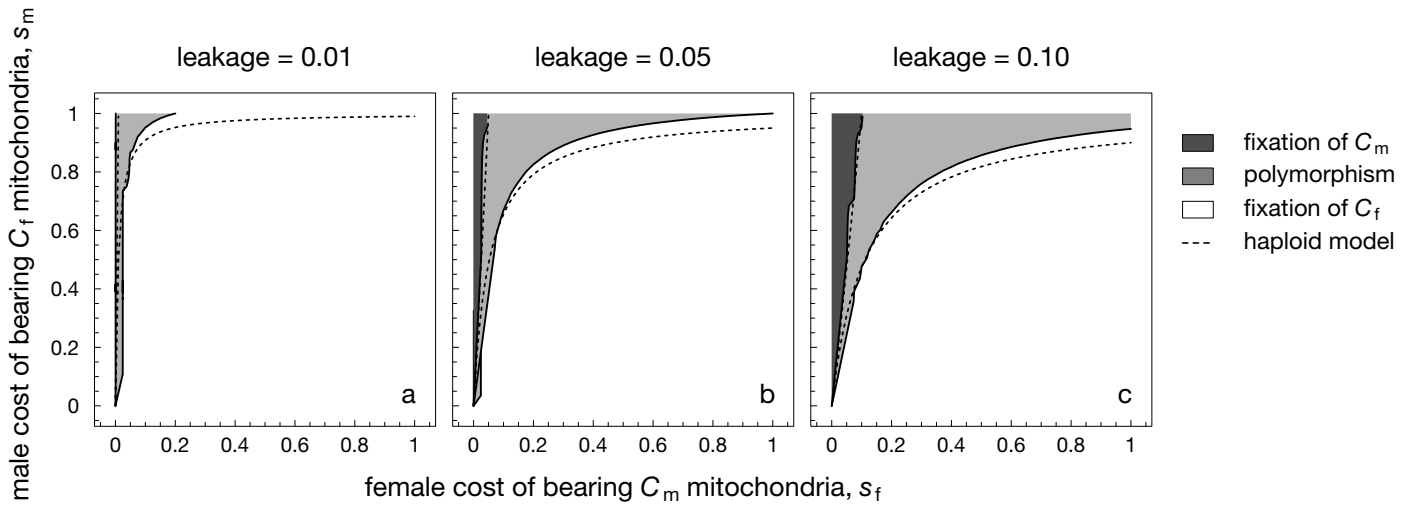


Figure S3:

629 **Figure S3** Cytoplasmic polymorphism when the shape of male and female fitness functions is additive
 630 and the size of the bottleneck $B = 10$. Although the region of polymorphism is slightly smaller relative to
 631 the haploid model, this is due to the conservative demarcation of the region of polymorphism at $p = 0.05$
 632 for the model in which each individual contains multiple cytoplasmic elements. A comparison with
 633 relative to Figure S1 (no bottleneck) shows that bottlenecks have little effect when fitness is additive.
 634 Parameters: $M = 200$, $\mu = 1 \times 10^{-5}$, $B = 10$.

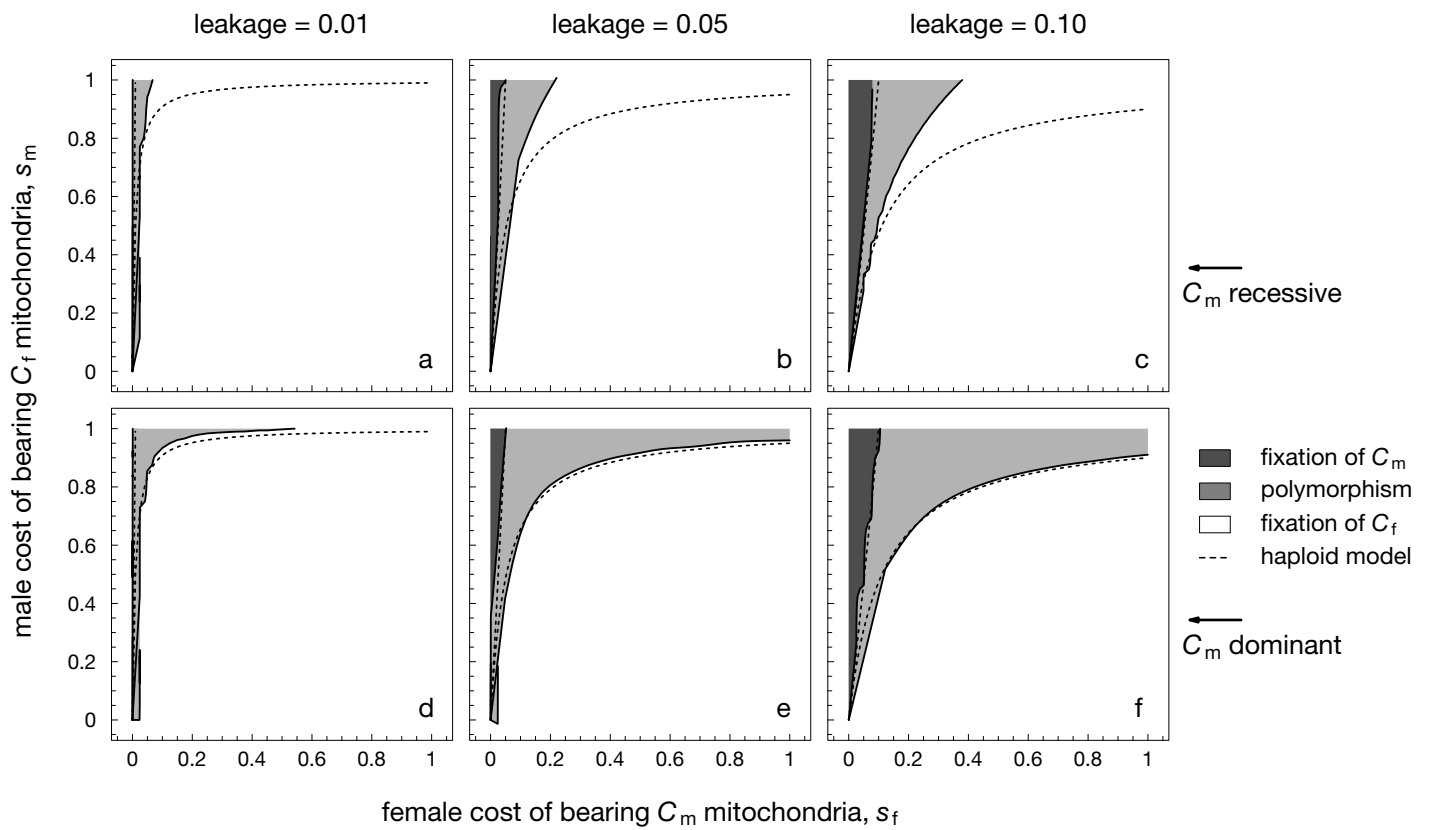


Figure S4:

635 **Figure S4** Cytoplasmic polymorphism when the shape of male and female fitness functions is given
 636 by a scenario of constant dominance (solid lines in Figure 2B,C) and the size of the bottleneck $B = 10$.
 637 Outcomes are similar to a scenario without bottlenecks in Figure 4. Parameters: $M = 200$, $\mu = 1 \times$
 638 10^{-5} , $B = 10$.