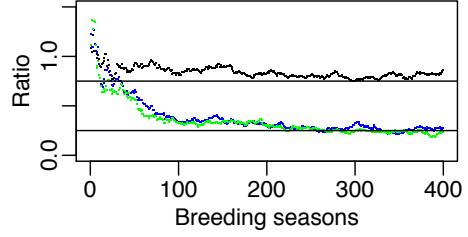
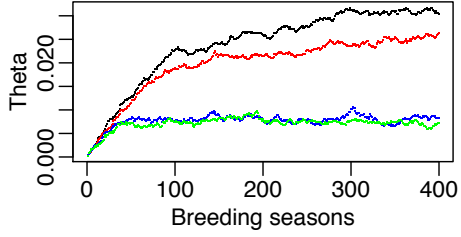


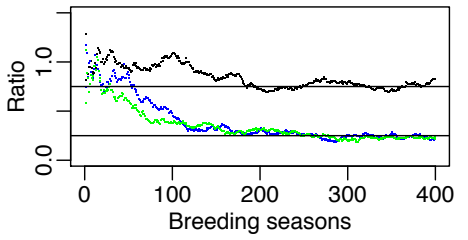
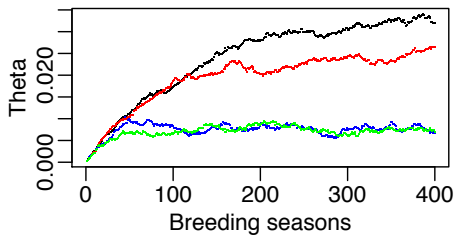
Figure S1 Plots of θ (Theta) versus breeding season and the relative θ (Ratio) versus breeding season. In plots of θ versus breeding season, mean values of θ_{aDNA} , θ_{xDNA} , θ_{mDNA} , and θ_{yDNA} across replicates are indicated in black, red, blue, and green respectively. In plots of the relative θ versus breeding season, estimates of $\theta_{xDNA} / \theta_{aDNA}$, $\theta_{mDNA} / \theta_{aDNA}$, and $\theta_{yDNA} / \theta_{aDNA}$ are indicated in black, blue, and green respectively, and horizontal lines indicate a relative θ value of 0.75 or 0.25. In three plots of θ versus breeding season, black arrowheads indicate atypically high θ_{yDNA} values that were sampled at 400,000 generations (“long” age structure, “no storage” model) or at 200,000 generations (“short” age structure, “seasonal monogamy” and “no storage” models) that led to a significantly higher N_{e-y} estimate compared to theoretical expectations. In the “harem for life” simulations for the “short” age structure, red arrowheads indicate atypical values for θ_{aDNA} , θ_{xDNA} , and $\theta_{xDNA} / \theta_{aDNA}$.

"Long" Age structure; simulated θ and θ Ratios versus generation plots

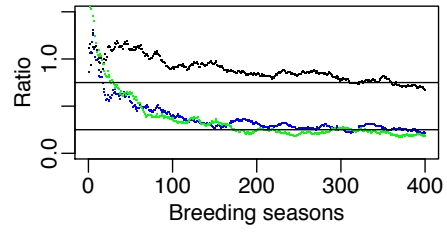
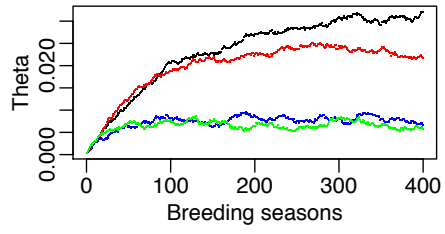
"Seasonal monogamy" Model (4000 loci, 400,000 breeding seasons)



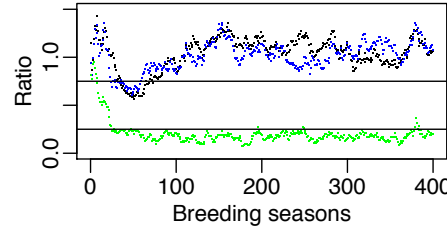
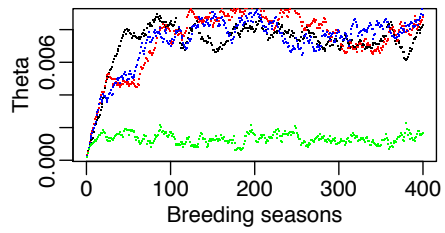
"Monogamy for life" Model (4000 loci, 400,000 breeding seasons)



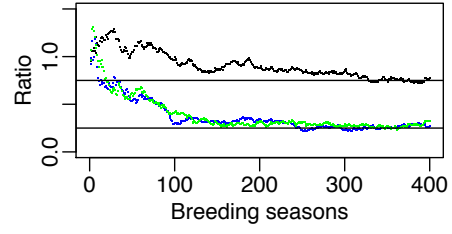
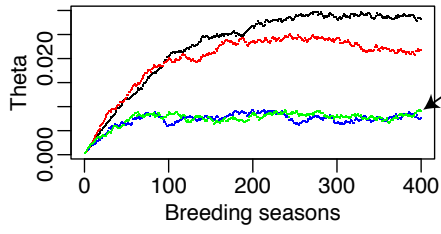
“Seasonal Harem” Model (4000 loci, 400,000 breeding seasons)



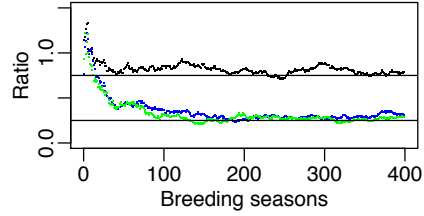
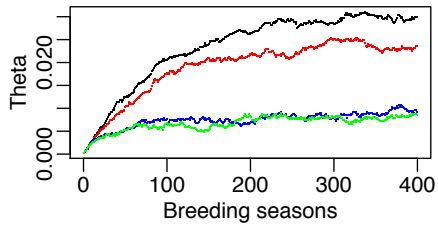
“Harem for life” Model (4000 loci, 400,000 breeding seasons)



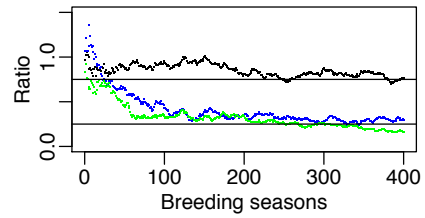
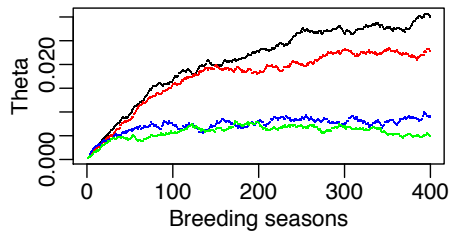
“No storage” Model (4000 loci, 400,000 breeding seasons)



“Half Storage” Model (4000 loci, 400,000 breeding seasons)

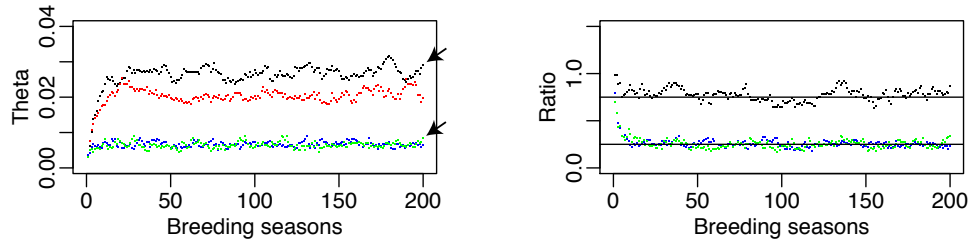


“All Storage” Model (4000 loci, 400,000 breeding seasons)

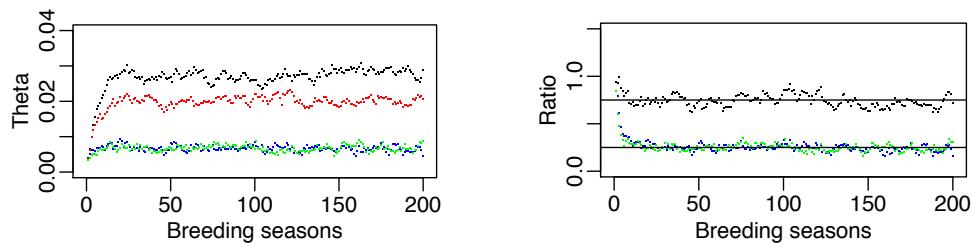


"Short" Age structure; simulated θ and θ Ratios versus generation plots

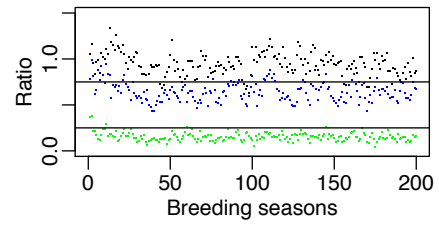
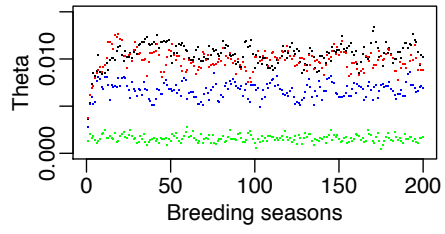
"Seasonal monogamy" Model (4000 loci, 200,000 breeding seasons)



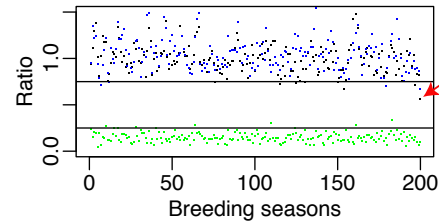
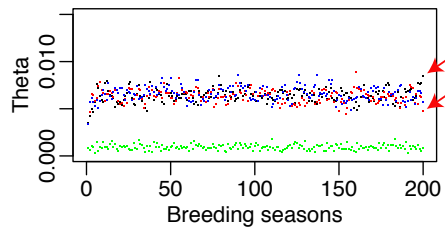
"Monogamy for life" Model (4000 loci, 200,000 breeding seasons)



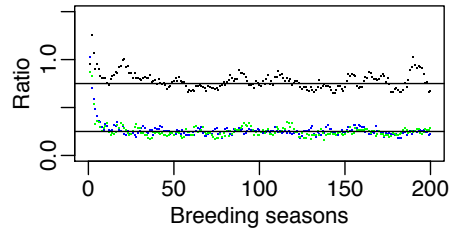
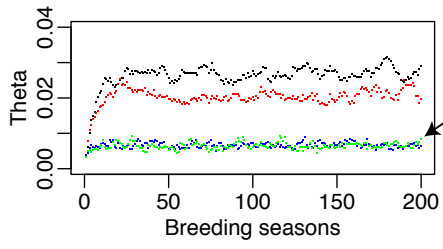
“Seasonal Harem” Model (4000 loci, 200,000 breeding seasons)



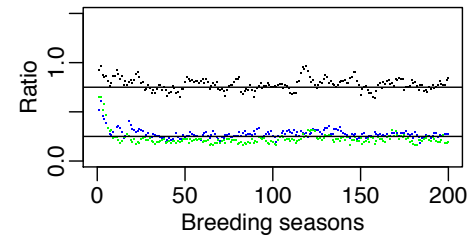
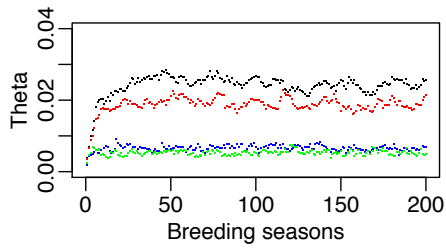
“Harem for life” Model (4000 loci, 200,000 breeding seasons)



“No storage” Model (4000 loci, 200,000 breeding seasons)



“Half Storage” Model (4000 loci, 200,000 breeding seasons)



“All Storage” Model (4000 loci, 200,000 breeding seasons)

