

Supplemental Material

S1) Age 1 recruitment in baseline simulations with a) deterministic recruitment, fixed carrying capacity and density dependent individual growth, b) deterministic recruitment, fixed carrying capacity and density independent individual growth, and c) stochastic recruitment and carrying capacity, and density dependent individual growth. For each plot, different line styles represent mean values of 10 simulations for each of the four designs: solid lines, no inheritance (i.e., fixed growth and maturation parameters); dotted- dashed lines, inherited maturation parameters; triangle-dashed lines, inherited growth parameters; cross-dashed lines, inherited growth and maturation parameters.

S2) Mean total length of age 2 (left) and age 10 (right) female super individuals in baseline simulations with a) deterministic recruitment, fixed carrying capacity and density dependent individual growth, b) deterministic recruitment, fixed carrying capacity and density independent individual growth, and c) stochastic recruitment and carrying capacity, and density dependent individual growth. For each plot, different line styles represent mean values of 10 simulations for each of the four designs: solid lines, no inheritance (i.e., fixed growth and maturation parameters); dotted- dashed lines, inherited maturation parameters; triangle-dashed lines, inherited growth parameters; cross-dashed lines, inherited growth and maturation parameters.

S3) Evolution of a) maturation parameters for males (left) and females (right) in baseline simulations with inherited maturation and fixed growth parameters ($X_1 - X_{12} = 0.5$) and including density independent growth. b) Evolution of growth parameters with inherited growth and fixed maturation parameters ($M_1 - M_{18} = 400$ mm) including density independent growth. Different symbols represent mean (from 10 separate simulations) maturation reaction norms (MRNs) in a and mean initial growth rate (K) and maximum attainable length (L_{max}) in b at 40 year intervals.

S4) a) Mean maturation reaction norms (MRNs) and b) growth parameters (initial growth rate (K) and maximum attainable length (L_{max})) in year 200 for males (left) and females (right). Results are presented for baseline simulations with a) inherited maturation, fixed growth parameters ($X_1 - X_{12} = 0.5$), density independent individual growth, and three levels of mortality rates ($Z = 0.3, 0.5, \text{ and } 0.7 \text{ yr}^{-1}$, shown in different line styles) and b) inherited growth parameters, fixed maturation parameters ($M_1 - M_{18} = 400$ mm), density independent individual growth, and three levels of mortality rates (Z, shown in different symbols).

S5) Mean evolving maturation reaction norms (MRNs) for a) males and b) females over a 1,000-year initiation simulation under deterministic conditions.

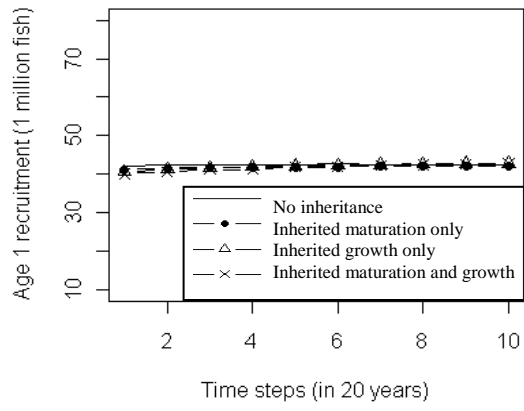
S6) Mean of ten, 1,000-year initiation simulations of a) evolving initial growth rate (K) and b) maximum attainable length (L_{max}) for males (left) and females (right) under deterministic conditions.

S7) Mean of ten replicates of 200-year simulations of age 1 recruitment (left) and population size (right) under deterministic conditions, with two size-limits (targeting large fish vs. small fish)

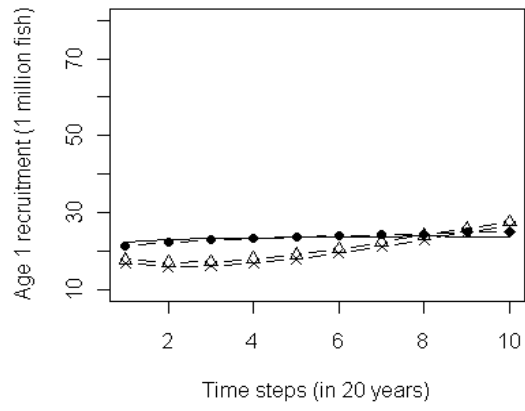
and various fishing mortality rates ($F = 0, 0.2, 0.4, 0.6, 0.8,$ and 1.0 yr^{-1} ; shown in different line styles).

S1

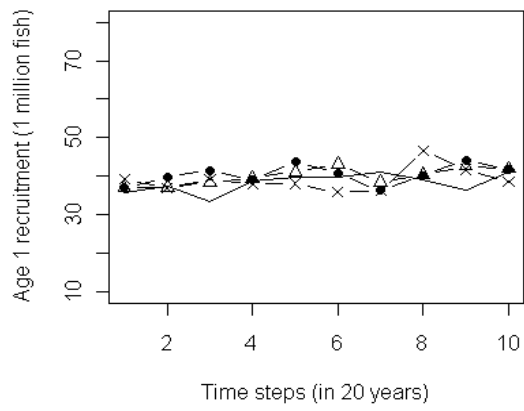
a)



b)



c)

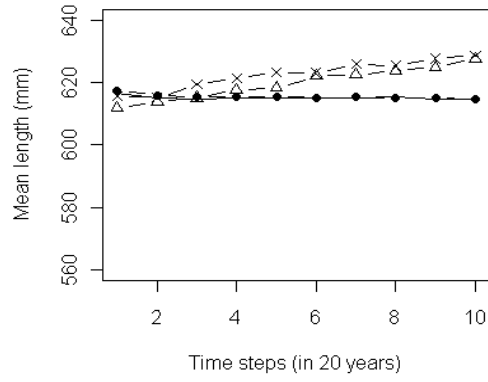
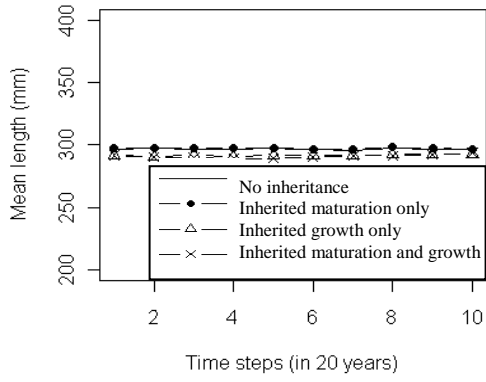


S2

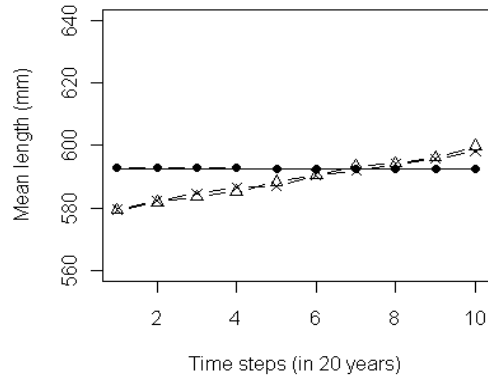
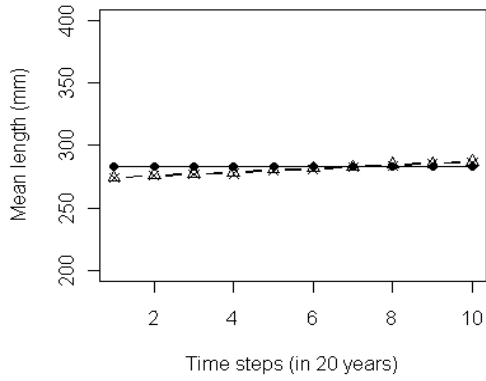
Age 2 female

Age 10 female

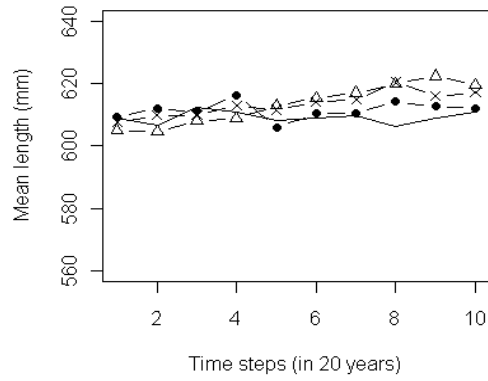
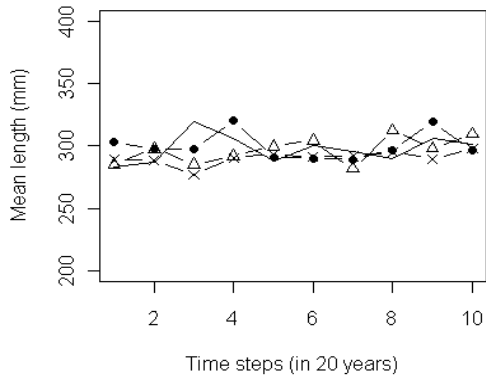
a)



b)



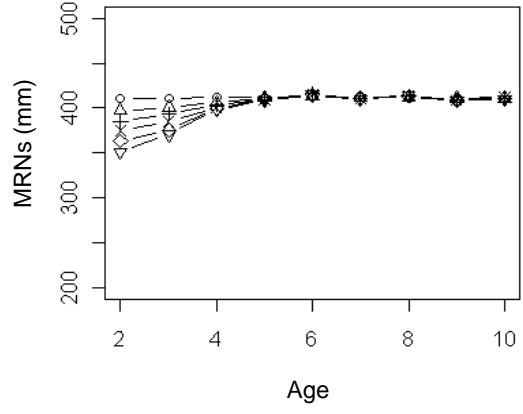
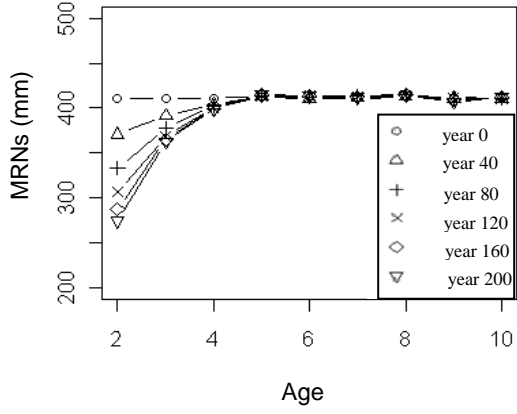
c)



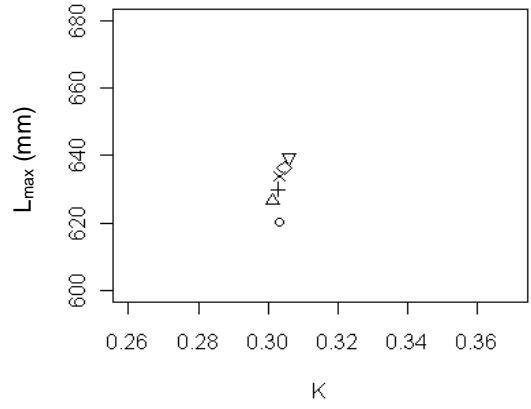
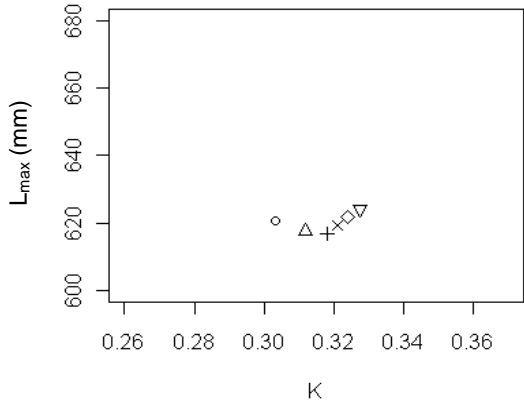
Males

Females

a)

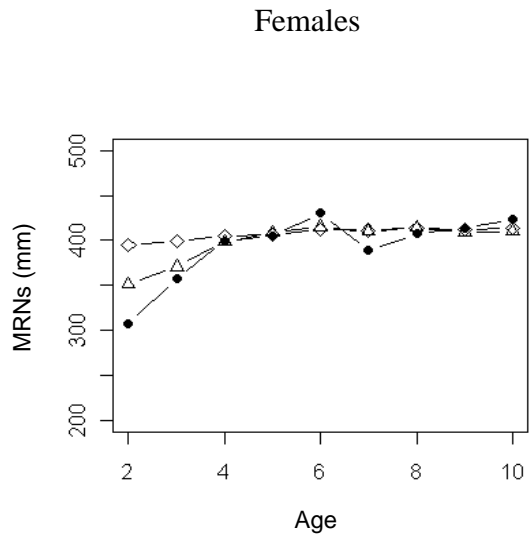
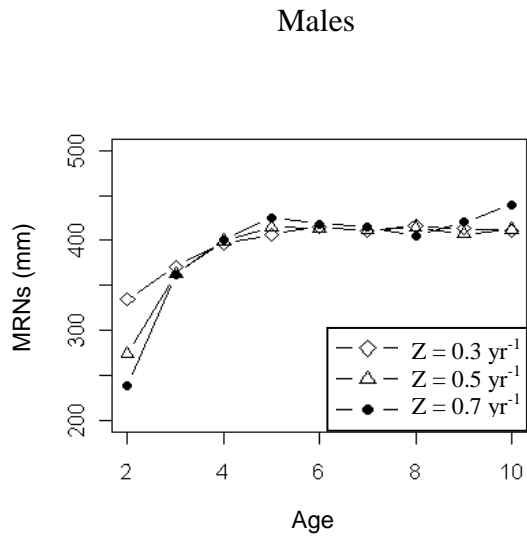


b)

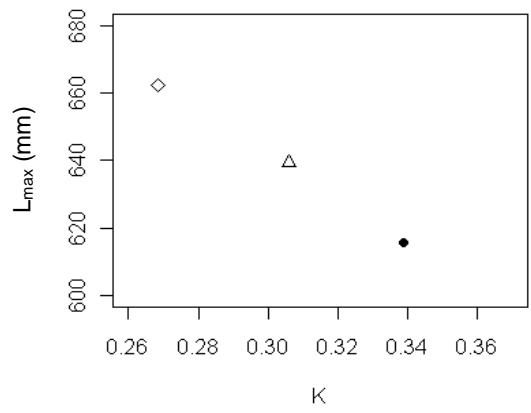
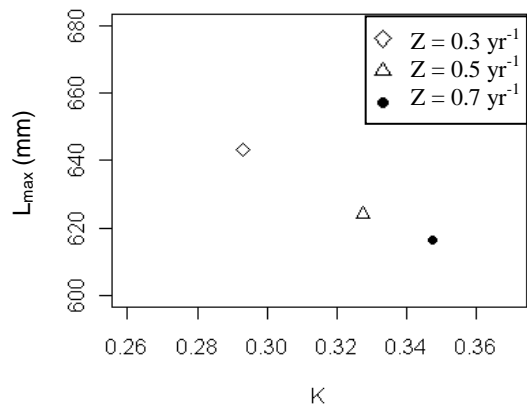


S4

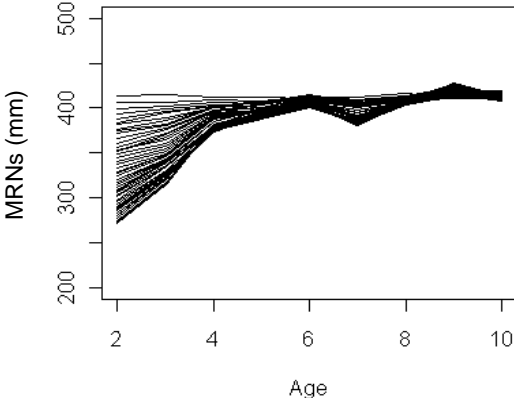
a)



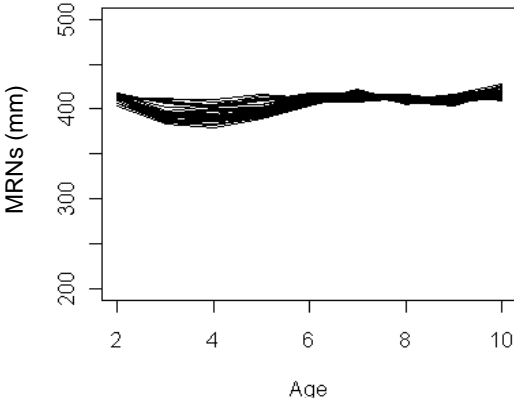
b)



a) Males



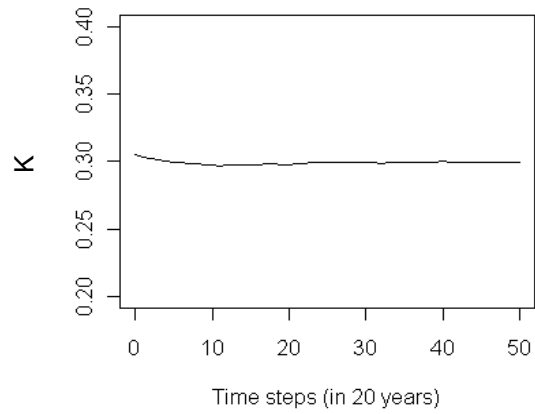
b) Females



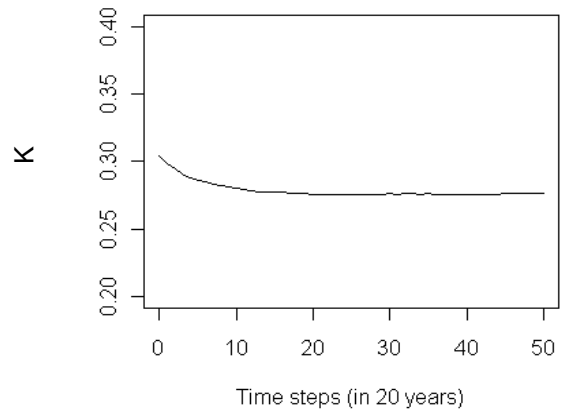
S6

a) Initial growth rate (K)

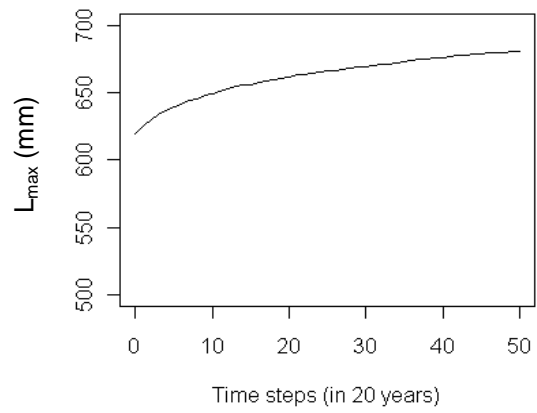
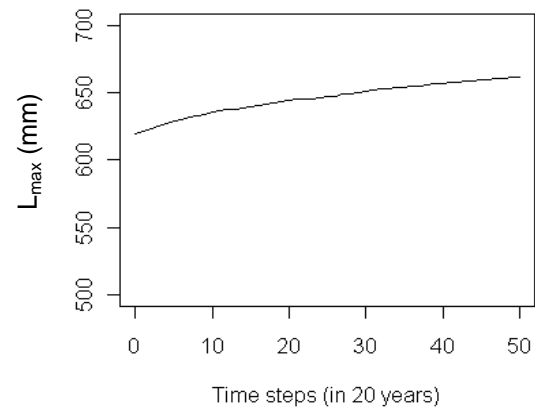
Males



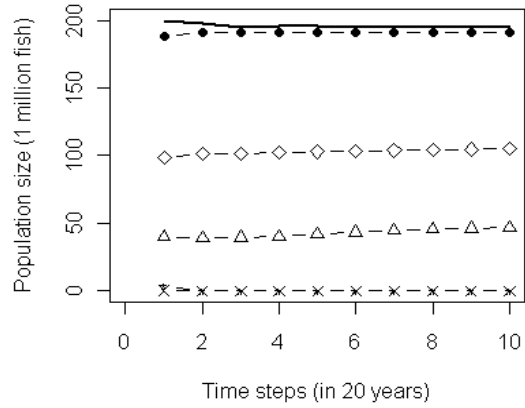
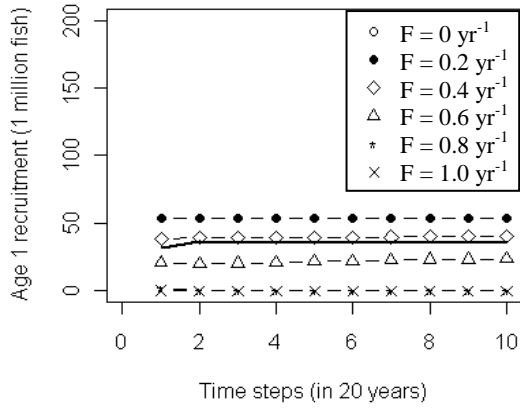
Females



b) Maximum attainable length (L_{\max})



Targeting large fish



Targeting small fish

