

Proportions Across Proportions Within (SR_Y) Growth_M (0,0) Growth_M (0,10) Growth_M (10,0) Growth_M (10,10) Growth_M (10,30) Growth_M (30,10) Growth_M (30,30) 10.0 Spawning Stock Biomass 7.5 5.0 2.5 0.0 10.0 Relative Error 7.5 Total Biomass 5.0 2.5 0.0 8 Total Fishing Mortality 6 4 2 -0.25.000.250.50 -0.26.000.250.50-0.40.20.00.20.40.6 -0.20.0 0.2 0.4 -0.2 0.0 0.2 0.4 -0.20.0.00.10.20.3-0.20.10.00.10.2

RE

Proportions Within (SR_ALY) Proportions Within (SR_Y) Growth_M (10,10) Growth_M (10,0) Growth_M (0,0) Growth_M (0,10) Growth_M (10,30) Growth_M (30,10) Growth_M (30,30) Spawning Stock Biomass 10 5 15 Relative Error 10 Total Biomass 5 12.5 10.0 Total Fishing Mortality 7.5 5.0 2.5 0.0 -0.2 0.0 0.2 0.40.20.**1**0.00.10.20.3-0.2 0.0 0.2 -0.2-0.10.0 0.1 0.2 -0.40.20.00.20.40.6-0.26.000.250.50 RE

Proportions Across Proportions Within (SR_Y) Growth_M (10,0) Growth_M (10,10) Growth_M (0,0) Growth_M (0,10) Growth_M (10,30) Growth_M (30,10) Growth_M (30,30) Spawning Stock Biomass 10 5 0 15 Relative Error 10 Total Biomass 5 12.5 10.0 Total Fishing Mortality 7.5 5.0 2.5 0.0 $-0.40.20.00.20.40.6 - 0.26.000.250.50 \ -0.20.10.00.10.20.3 - 0.20.10.00.10.20.3 - 0.20.10.00.10.20.3$ -0.1 0.0 0.1 $-0.1 \ 0.0$

RE

Proportions Within (SR_ALY) Proportions Within (SR_Y) Growth_M (0,10) Growth_M (10,0) Growth_M (0,0) Growth_M (10,10) Growth_M (10,30) Growth_M (30,10) Growth_M (30,30) Spawning Stock Biomass 9 6 3 Relative Error Total Biomass 6 Total Fishing Mortality 4 2 -0.2 0.0 0.2 0.40.5 0.0 -0.2**5**.000.250.50-0.40.20.00.20.40.6 -0.2 0.0 0.2 0.**0**.5**0**.250**0**.2**5**.5**0**.75 RE

Proportions Across Proportions Within (SR_Y) Growth_M (10,0) Growth_M (10,10) Growth_M (0,0) Growth_M (0,10) Growth_M (10,30) Growth_M (30,10) Growth_M (30,30) Spawning Stock Biomass 9 6 3 Relative Error Total Biomass 6 Total Fishing Mortality 4 2 -0.25.000.250.50 -0.26.000.250.50 -0.2 0.0 0.2 0.0.50.2500.25.50.75 -0.2 0.0 0.2 $-0.5 \quad 0.0$ RE

Proportions Within (SR_ALY) Proportions Within (SR_Y) Growth_M (0,0) Growth_M (0,10) Growth_M (10,0) Growth_M (10,10) Growth_M (10,30) Growth_M (30,10) Growth_M (30,30) Spawning Stock Biomass 7.5 5.0 2.5 0.0 Relative Error 6.2 Error 6.2 Total Biomass 0.0 6 Total Fishing Mortality 2 -0.5 0.0 0.5 1.0-1 0 RE 0.2 2 3 -0.2 0.0 0.2 -0.5 0.0 0.5 1.0 -0.2**6**.0**0**.2**5**0.50 -0.50.0 0.5 1.0 1.5-0.2 0.0

Proportions Across Proportions Within (SR_Y) Growth_M (10,0) Growth_M (10,10) Growth_M (0,0) Growth_M (0,10) Growth_M (10,30) Growth_M (30,10) Growth_M (30,30) Spawning Stock Biomass 7.5 5.0 2.5 0.0 Relative Error 7.5 Total Biomass 5.0 2.5 0.0 **Total Fishing Mortality** 6 4 2 -0.5 0.0 0.5 1.0-1 0 RE -0.2**5**.0**0**.2**5**0.50 -0.50.0 0.5 1.0 1.5 -0.2 0.0 0.2 3 -0.20.**0**.00.10.20.3-0.50.0 0.5 1.0