1

PARENTAL INVESTMENT AND MATE QUALITY

Supplementary Material to

Differential allocation revisited: When should mate quality affect parental investment?

Thomas R. Haaland,^{1*} Jonathan Wright,¹ Bram Kuijper,^{2, 3} Irja I. Ratikainen¹

¹⁾ Centre for Biodiversity Dynamics, Norwegian University of Science and Technology, Trondheim, Norway

²⁾ Environment and Sustainability Institute, University of Exeter, Penryn Campus, Treliever Road, Penryn TR10 9EZ, United Kingdom

³⁾ College of Life and Environmental Sciences, University of Exeter, Penryn Campus, Penryn, TR10 9FE, United Kingdom.

*Corresponding author, e-mail: thomas.r.haaland@ntnu.no

Am. Nat. 2017



Figure S1: Forward simulation results from scenario Benefit-Elevation, showing realized investments with poor (yellow line), medium (orange line) and good (red line) quality males, for females in different states (a) and different time steps (b). Lines show means for each state or time step, with error bars of 1 standard deviation. Gray bars in the background show how many instances of each mating occurred in 1000 simulations, divided by 100 (i.e. there were about 500 matings in time step 4). The dark gray line in (b) shows the average state of all females alive at each time step.



Figure S2: Forward simulation results from scenario Benefit-Slope, showing realized investments with poor (yellow line), medium (orange line) and good (red line) quality males, for females in different states (a) and different time steps (b). Lines show means for each state or time step, with error bars of 1 standard deviation. Gray bars in the background show how many instances of each mating occurred in 1000 simulations, divided by 100. The dark gray line in (b) shows the average state of all females alive at each time step.



Figure S3: Forward simulation results from scenario Benefit-Position, showing realized investments with poor (yellow line), medium (orange line) and good (red line) quality males, for females in different states (a) and different time steps (b). Lines show means for each state or time step, with error bars of 1 standard deviation. Gray bars in the background show how many instances of each mating occurred in 1000 simulations, divided by 100. The dark gray line in (b) shows the average state of all females alive at each time step.



Figure S4: Forward simulation results from scenario Cost-Elevation, showing realized investments with poor (yellow line), medium (orange line) and good (red line) quality males, for females in different states (a) and different time steps (b). Lines show means for each state or time step, with error bars of 1 standard deviation. Gray bars in the background show how many instances of each mating occurred in 1000 simulations, divided by 100. The dark gray line in (b) shows the average state of all females alive at each time step.



Figure S5: Forward simulation results from scenario Cost-Slope, showing realized investments with poor (yellow line), medium (orange line) and good (red line) quality males, for females in different states (a) and different time steps (b). Lines show means for each state or time step, with error bars of 1 standard deviation. Gray bars in the background show how many instances of each mating occurred in 1000 simulations, divided by 100. The dark gray line in (b) shows the average state of all females alive at each time step.



Figure S6: Forward simulation results from scenario Cost-Position, showing realized investments with poor (yellow line), medium (orange line) and good (red line) quality males, for females in different states (a) and different time steps (b). Lines show means for each state or time step, with error bars of 1 standard deviation. Gray bars in the background show how many instances of each mating occurred in 1000 simulations, divided by 100. The dark gray line in (b) shows the average state of all females alive at each time step.



Figure S7: Forward simulation results from scenario Sigmoid Benefit-Position, showing realized investments with poor (yellow line), medium (orange line) and good (red line) quality males, for females in different states (a) and different time steps (b). Lines show means for each state or time step, with error bars of 1 standard deviation. Gray bars in the background show how many instances of each mating occurred in 1000 simulations, divided by 100. The dark gray line in (b) shows the average state of all females alive at each time step.



Figure S8: Forward simulation results from scenario Juvenile Survival, showing realized investments with poor (yellow line), medium (orange line) and good (red line) quality males, for females in different states (a) and different time steps (b). Lines show means for each state or time step, with error bars of 1 standard deviation. Gray bars in the background show how many instances of each mating occurred in 1000 simulations, divided by 100. The dark gray line in (b) shows the average state of all females alive at each time step.



Figure S9: Forward simulation results from scenario High Mating Skew, showing realized investments with poor (yellow line), medium (orange line) and good (red line) quality males, for females in different states (a) and different time steps (b). Lines show means for each state or time step, with error bars of 1 standard deviation. Gray bars in the background show how many instances of each mating occurred in 1000 simulations, divided by 100. The dark gray line in (b) shows the average state of all females alive at each time step.