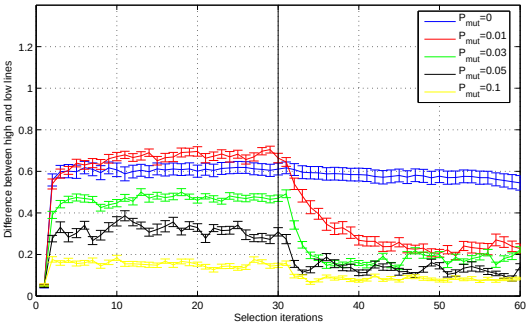
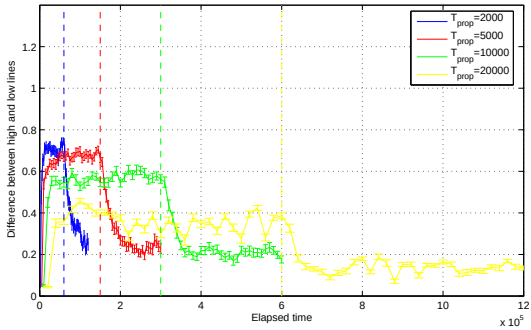
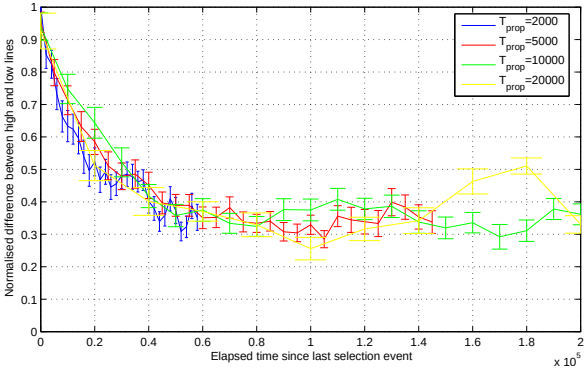


(a) $T_{prop} = 5000$ for all runs, $P_{mut} \in \{0, 0.01, 0.03, 0.05, 0.1\}$ for $\{43, 57, 87, 42, 73\}$ runs respectively with each value. Number of iterations is a good measure of elapsed time since all iterations are of same duration.



(b) $P_{mut} = 0.01$ for all runs, $T_{prop} \in \{2000, 5000, 10000, 20000\}$ for $\{46, 57, 60, 75\}$ runs respectively with each value. Data values plotted against elapsed time (in model time steps), rather than against the number of selection events (in ecosystem selection iterations), to allow comparison. Vertical dashed lines mark the point when directed selection was replaced by random selection (i.e., end of iteration 30).



(c) Real-time comparison of response to artificial ecosystem selection when time between selection events is varied. Figure shows relaxation of selected function after directed selection pressure is removed. Here the difference between the high and low selected lines is normalised by dividing by the mean distance from the target abiotic state vector over the last 10 iterations of directed selection. This analysis highlights the similarity in relaxation rate measured over elapsed time, as opposed to the difference when measured over the number of elapsed iterations, when mutation rate is kept the same but propagation time is varied.