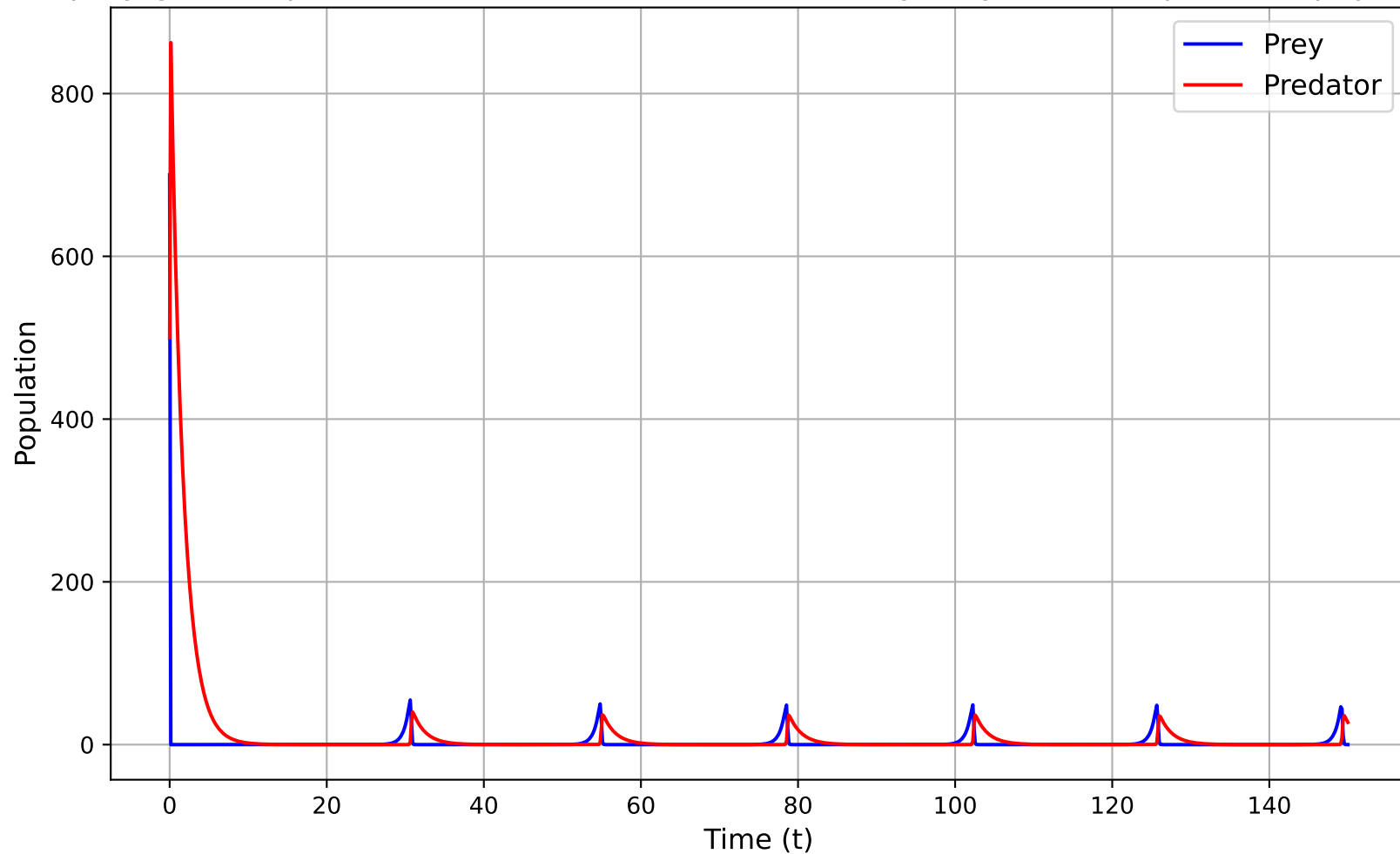


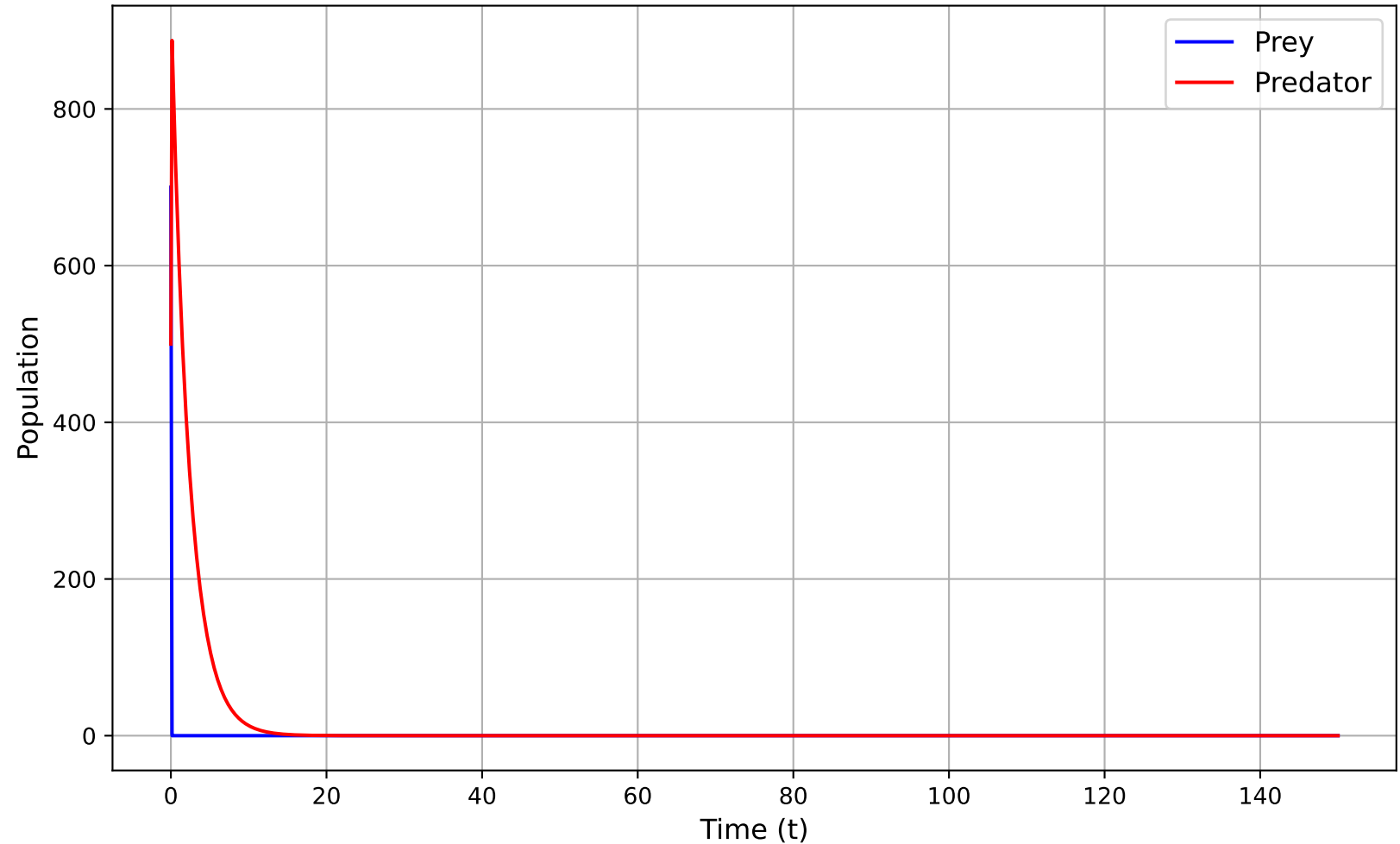
$\alpha = 1.49, \beta = 0.52, \delta = 0.33, \gamma = 0.62$ Simulation #1

Moderate prey growth, predators decline after initial rise. Prey may thrive as predator population shrinks.



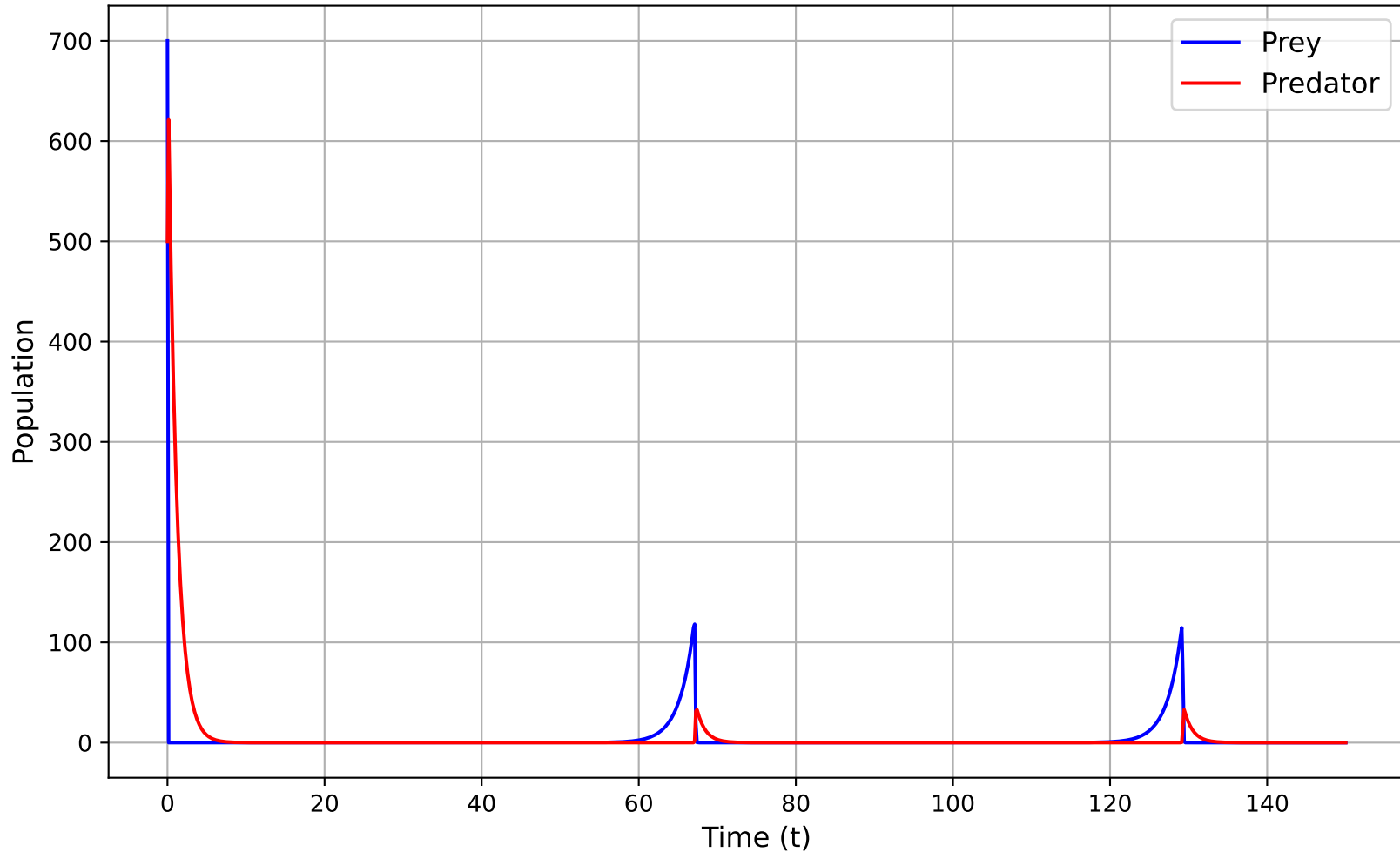
$\alpha = 1.52, \beta = 0.52, \delta = 0.33, \gamma = 0.43$ Simulation #2

Stable oscillations as prey grows and predators recover due to lower death rates.



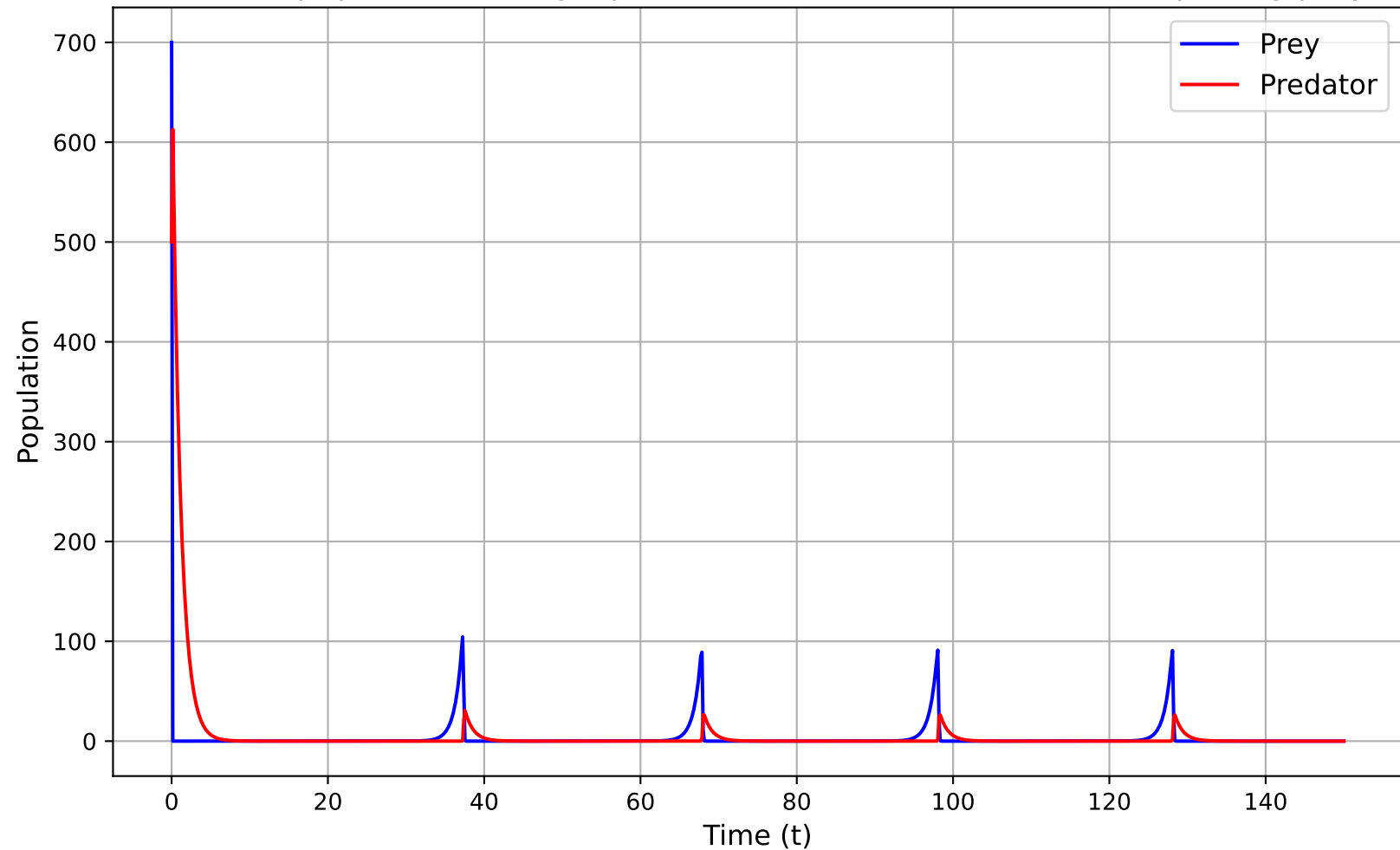
$\alpha = 0.55, \beta = 0.86, \delta = 0.26, \gamma = 0.91$ Simulation #3

High predation with weak prey growth. Predators crash after an initial rise due to high mortality.



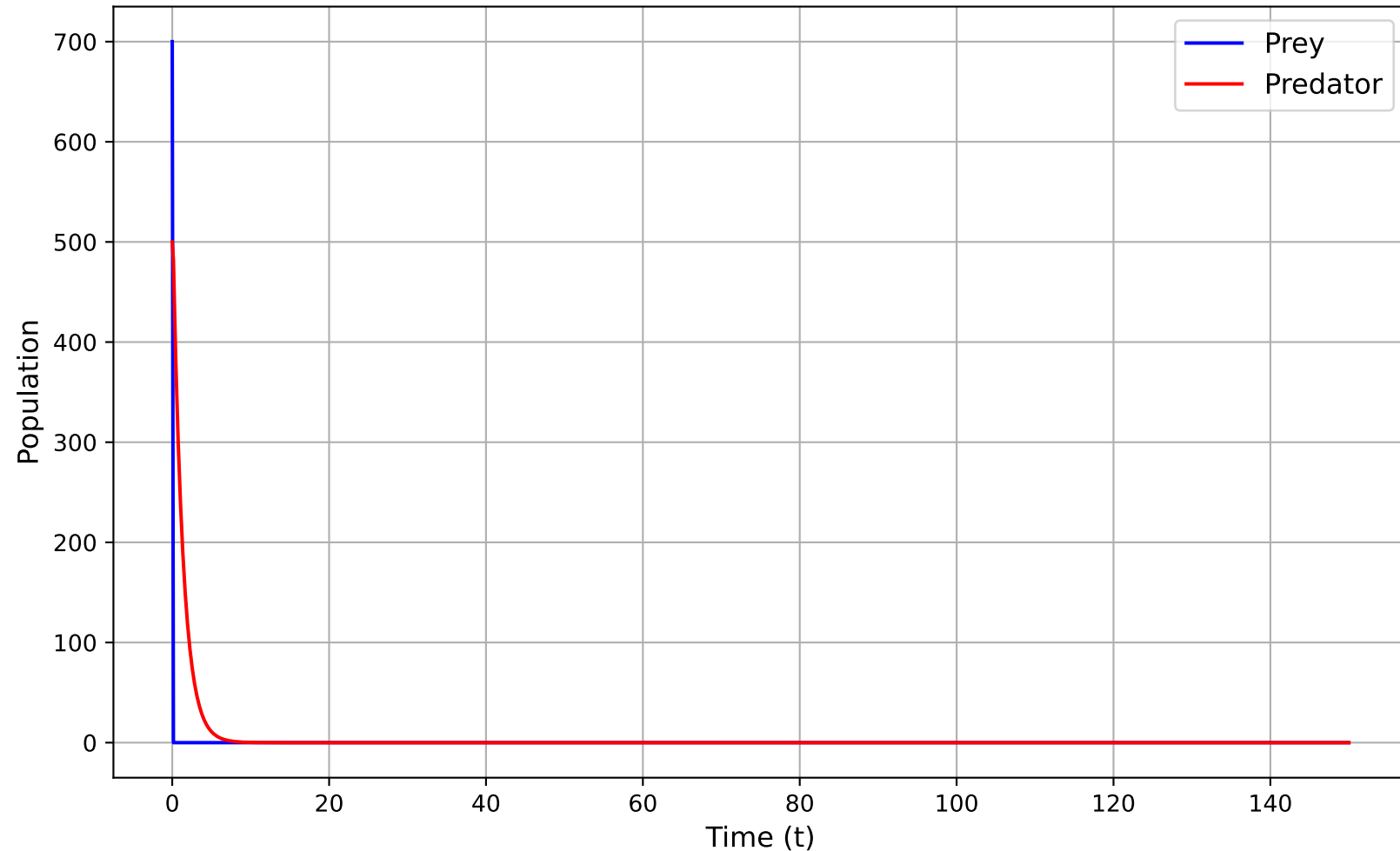
$\alpha = 1.11, \beta = 0.99, \delta = 0.29, \gamma = 0.94$ Simulation #4

Extreme population swings, predators boom and crash after depleting prey.

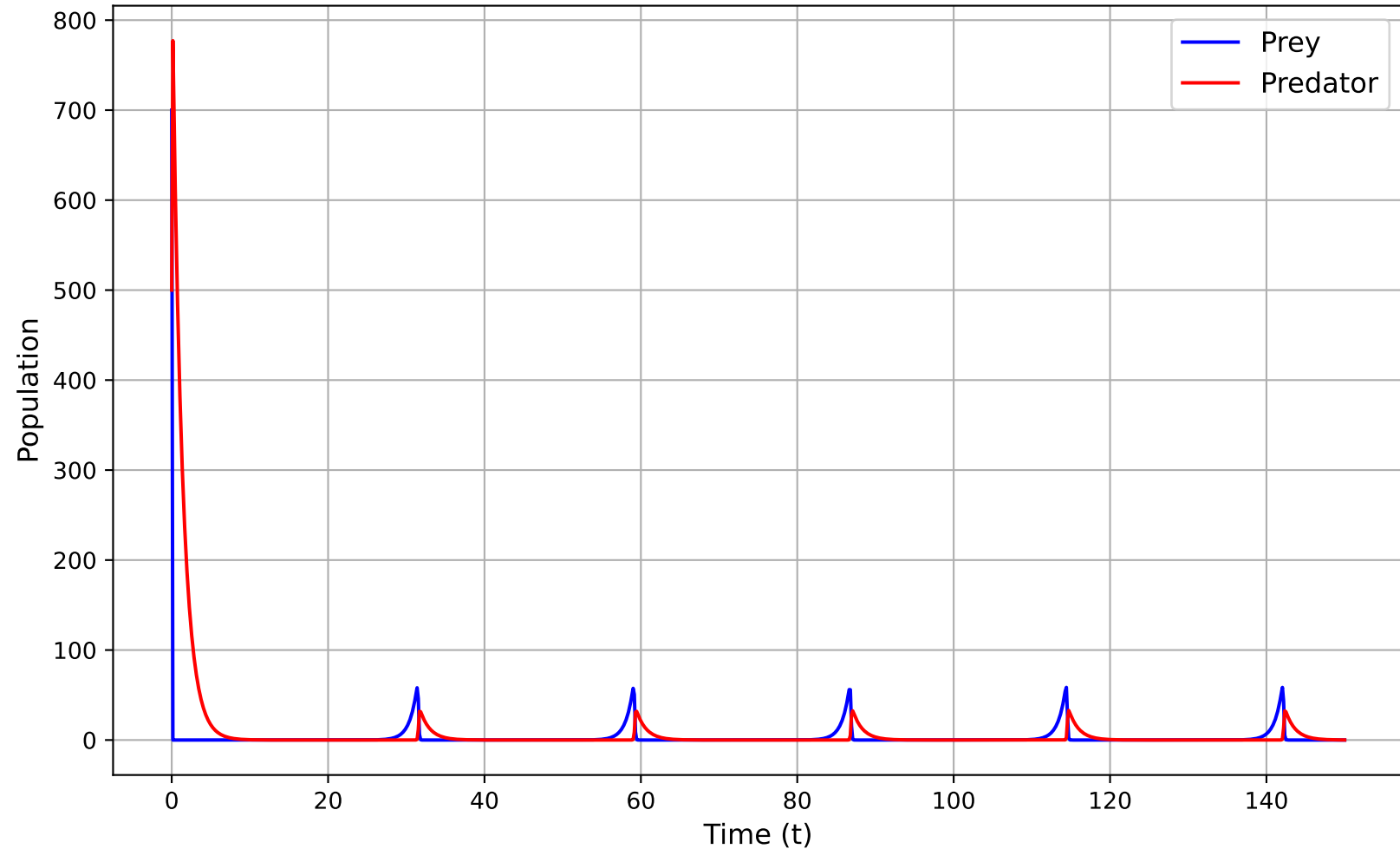


$\alpha = 1.05, \beta = 0.84, \delta = 0.05, \gamma = 0.78$ Simulation #5

Predators struggle to reproduce despite high predation. Prey may dominate over time.

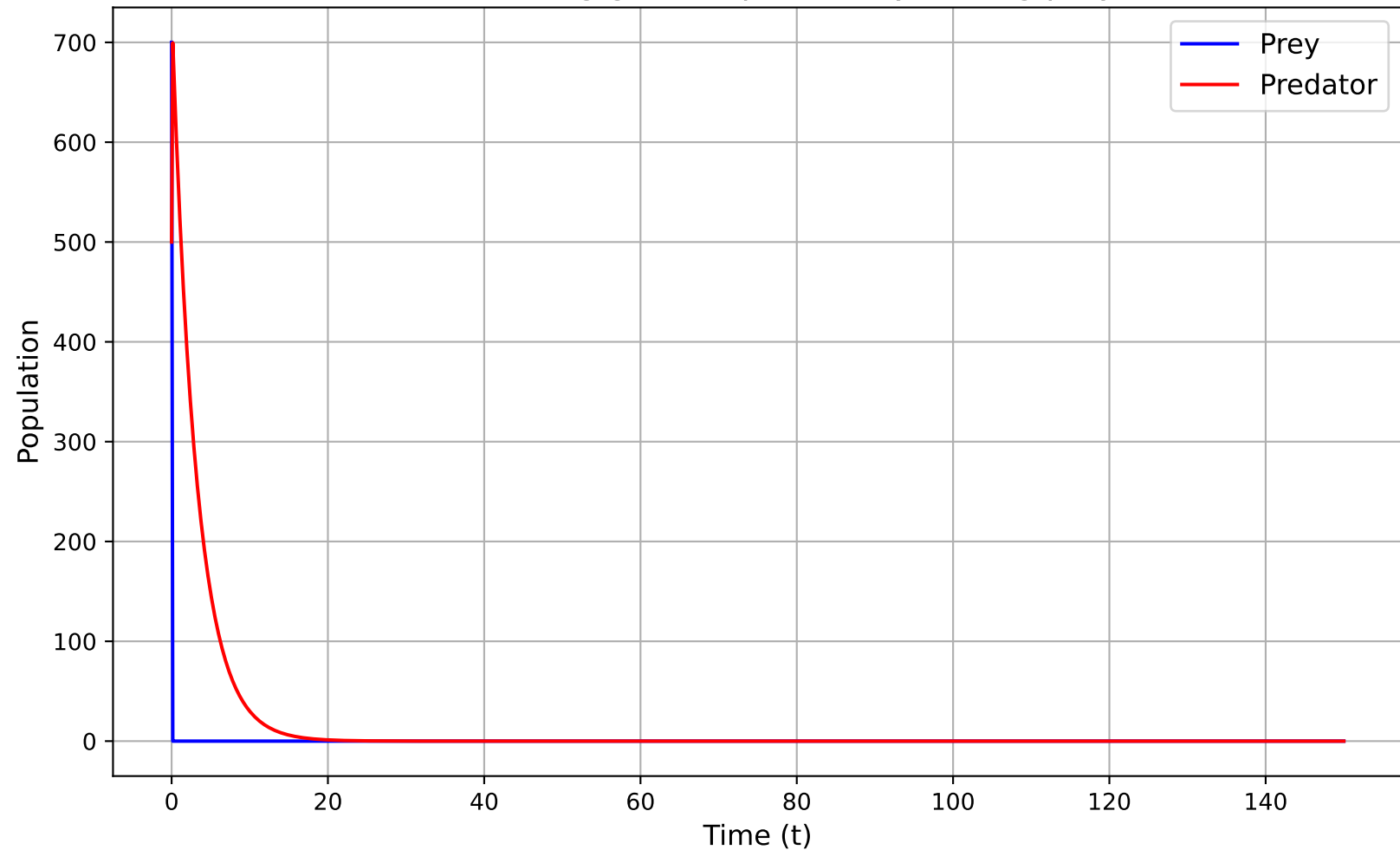


$\alpha = 1.07, \beta = 0.6, \delta = 0.32, \gamma = 0.79$ Simulation #6
Balanced oscillations as prey and predator populations stabilize over time.



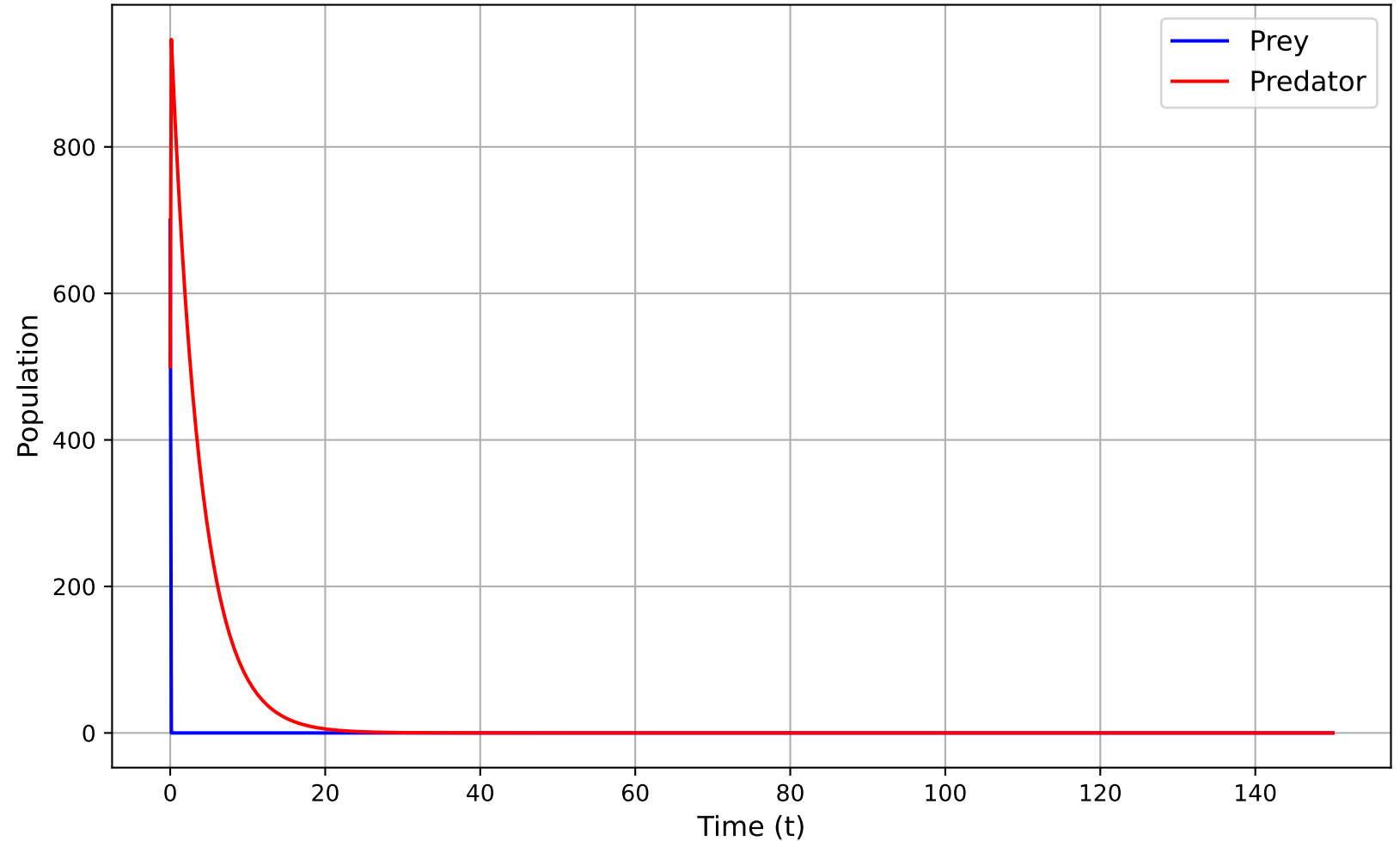
$\alpha = 1.28, \beta = 0.96, \delta = 0.32, \gamma = 0.32$ Simulation #7

Predators thrive with strong growth, potentially driving prey numbers down.



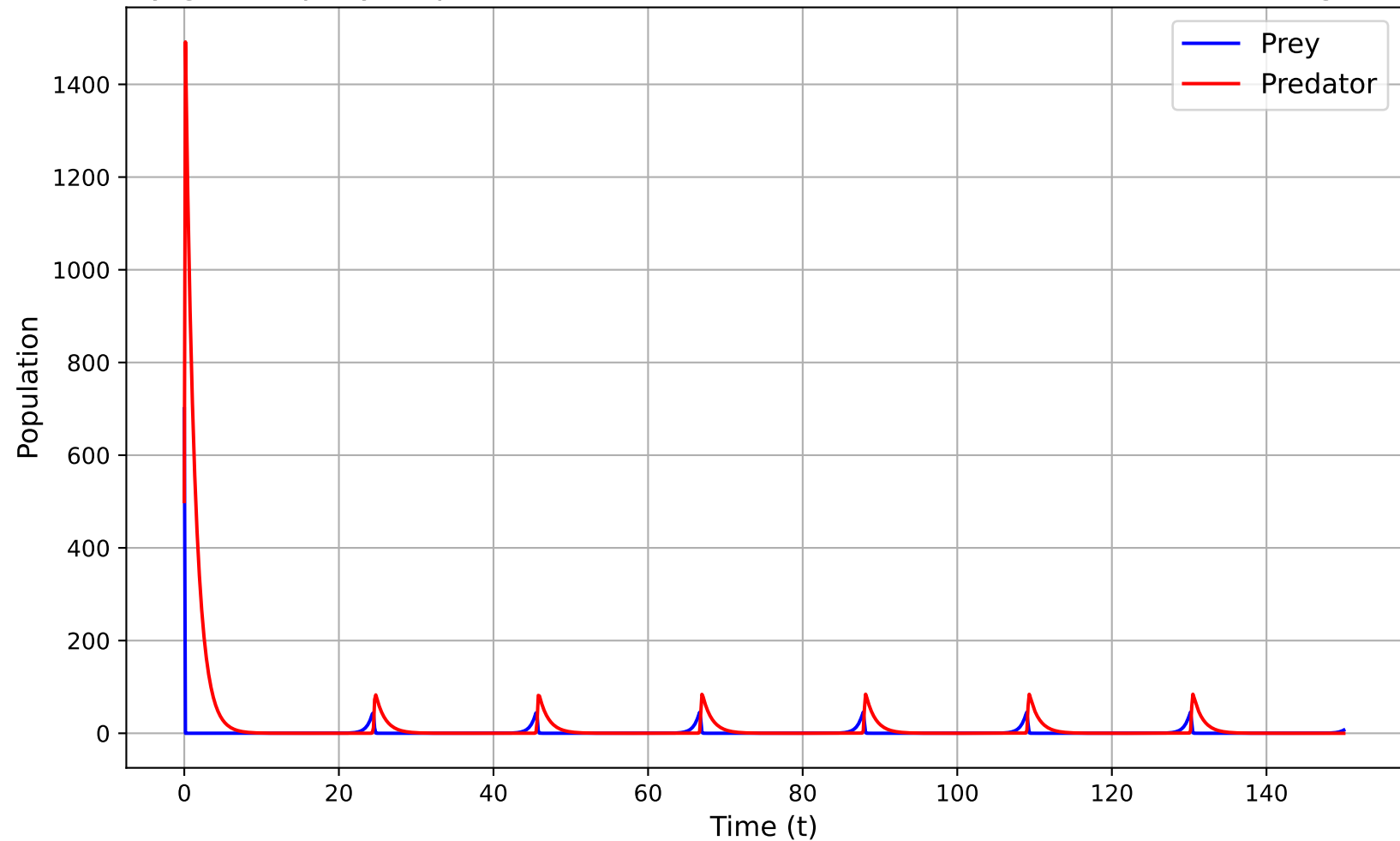
$\alpha = 1.84, \beta = 0.61, \delta = 0.42, \gamma = 0.26$ Simulation #8

Predators thrive as prey grows fast. Populations may stabilize after initial oscillations.



$\alpha = 1.44, \beta = 0.25, \delta = 0.42, \gamma = 0.82$ Simulation #9

Prey grow rapidly as predation is weak. Predator decline follows after initial growth.



$\alpha = 1.69, \beta = 0.23, \delta = 0.12, \gamma = 0.97$ Simulation #10

Predators face extinction as weak predation and reproduction favor prey dominance.

