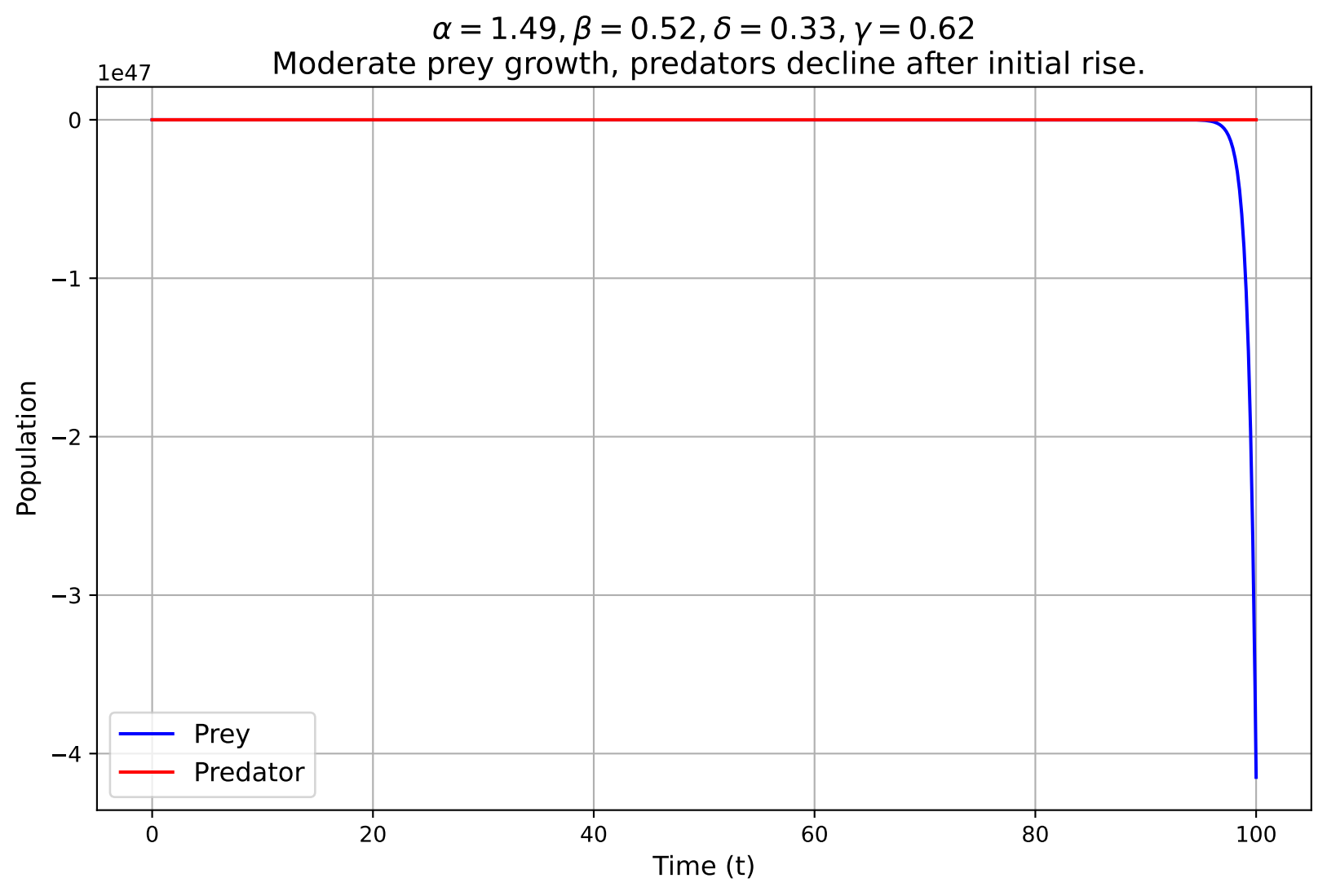
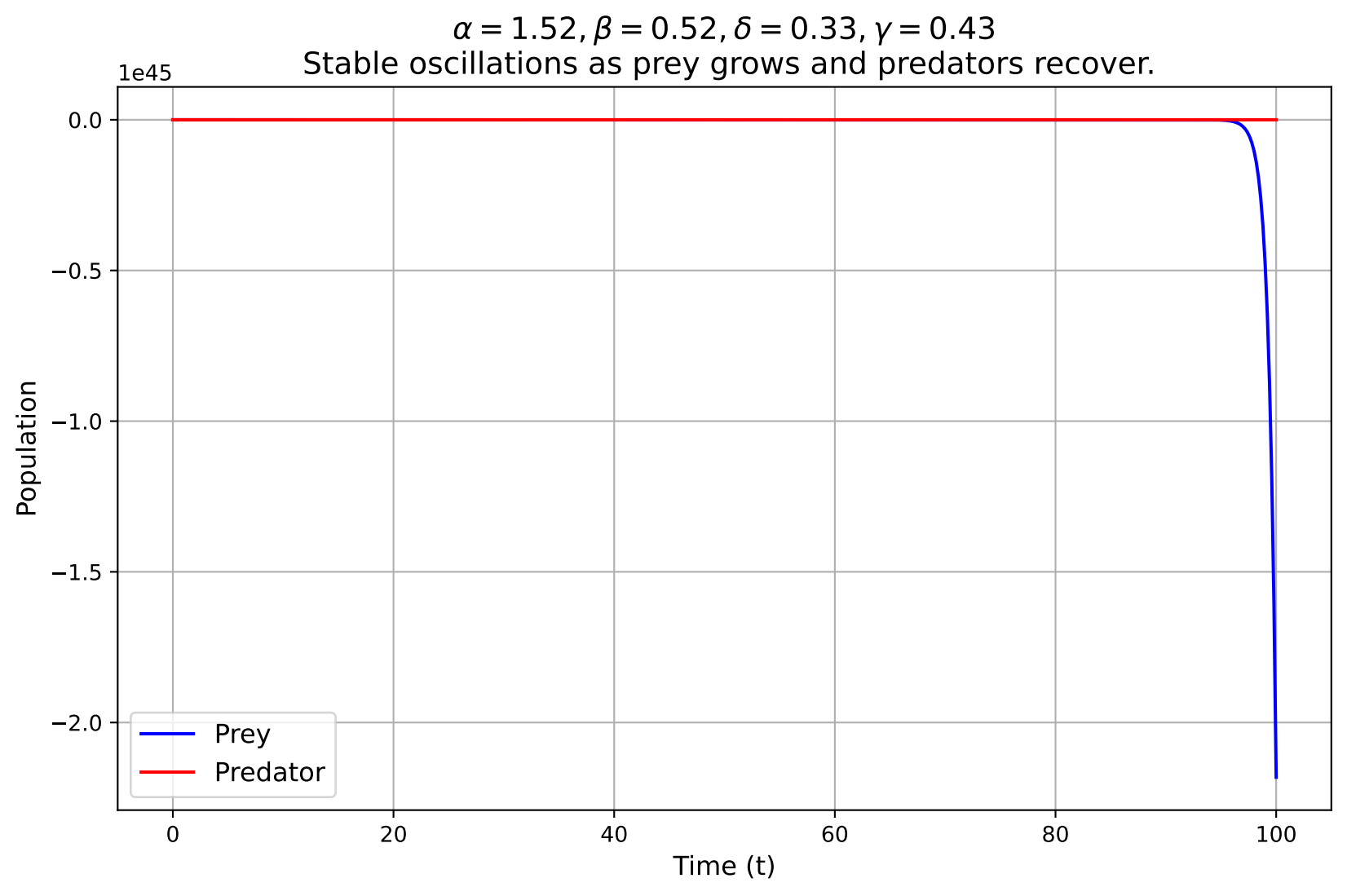
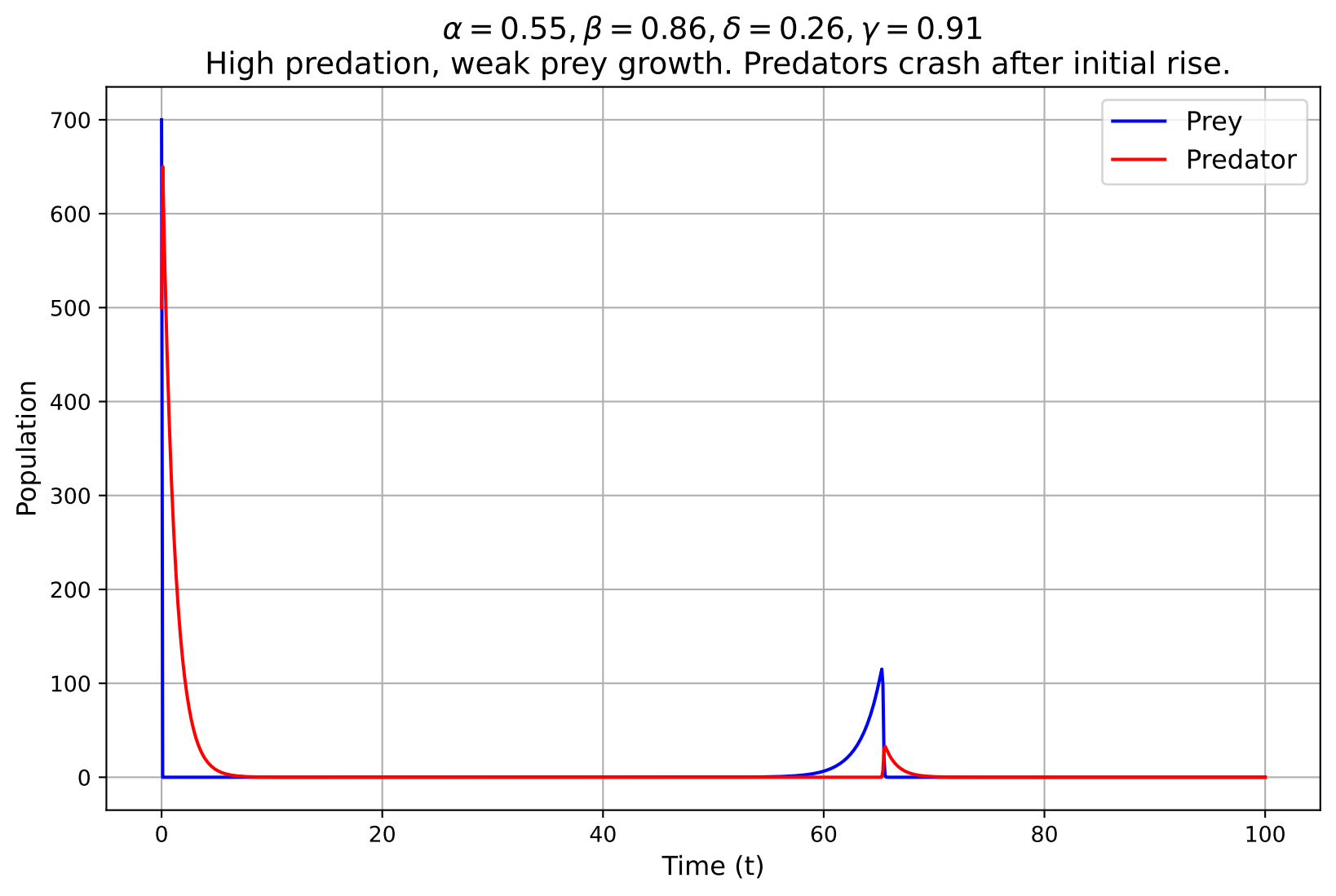
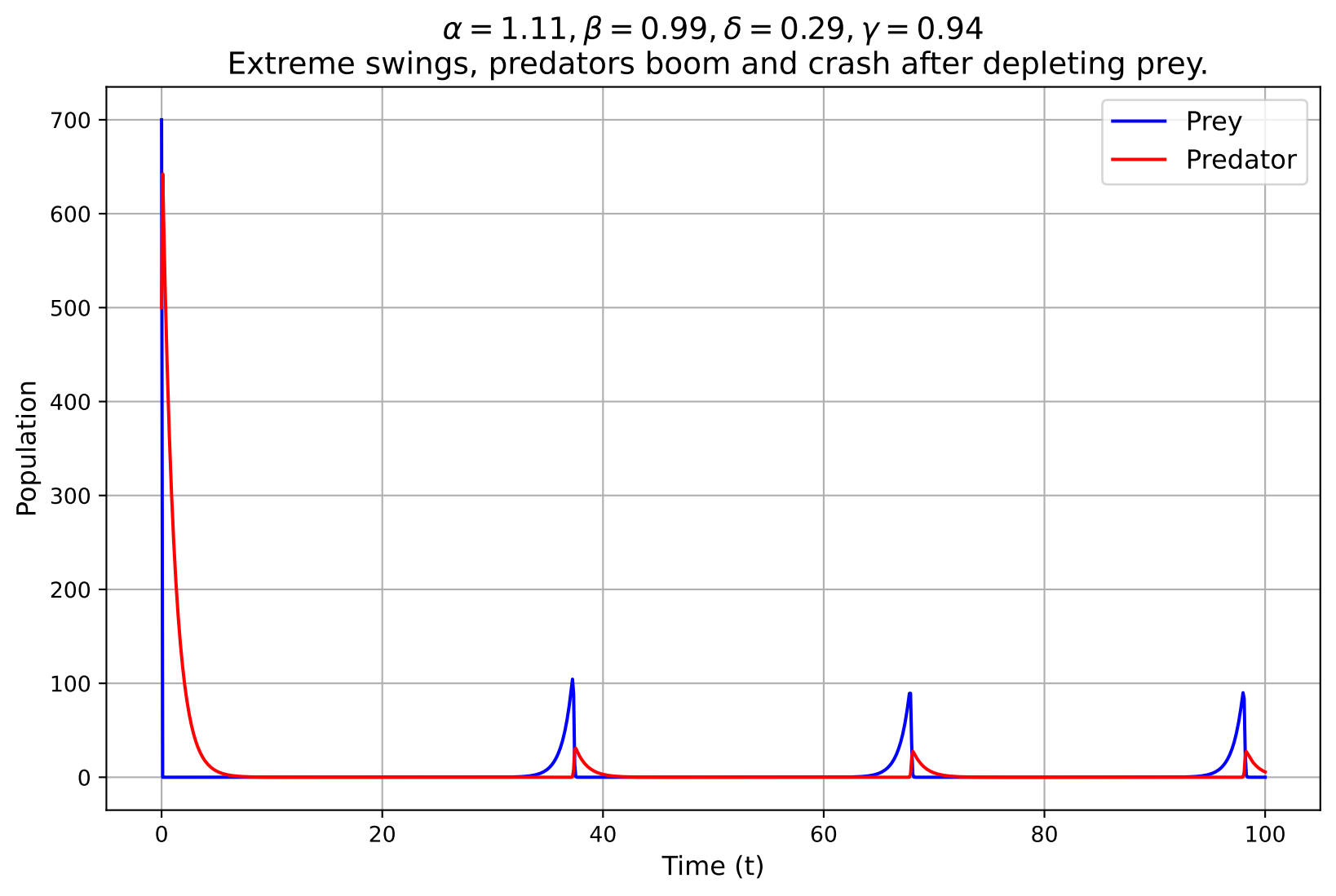
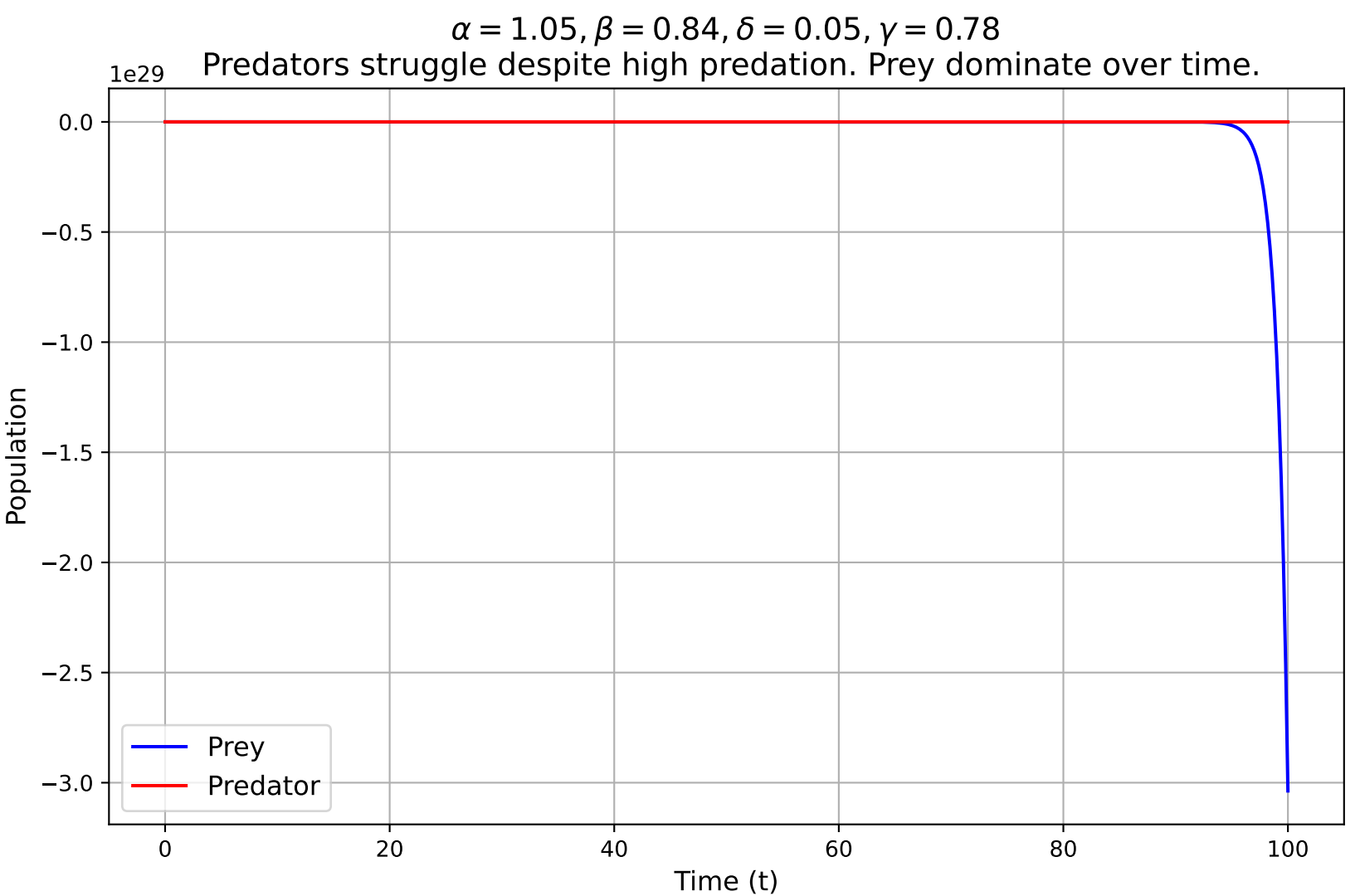
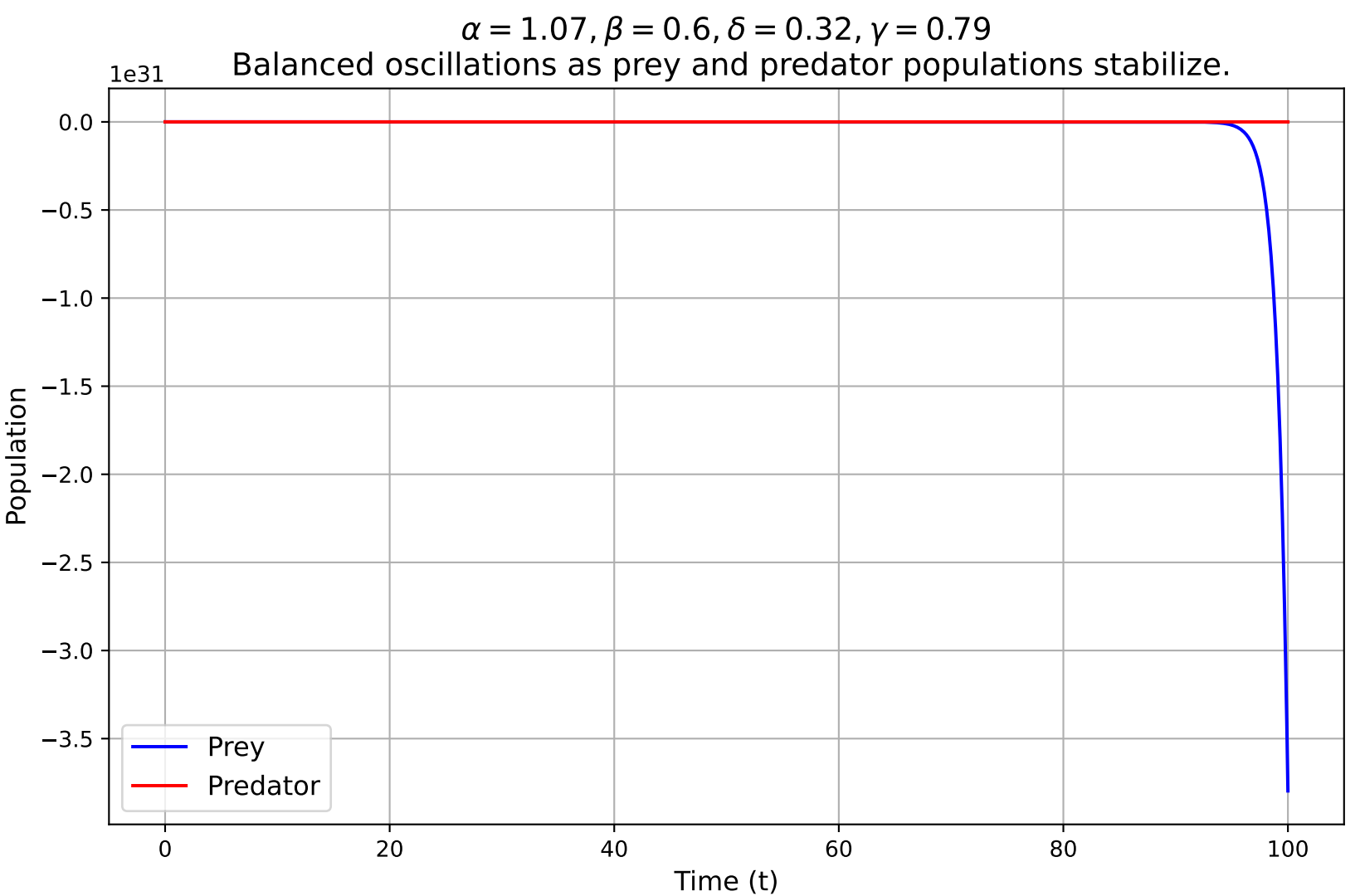

$\alpha = 1.49, \beta = 0.52, \delta = 0.33, \gamma = 0.62$
Moderate prey growth, predators decline after initial rise.
1e47
0
−1
−2
−3
−4
Population
0
20
40
60
80
100
Time (t)
Prey
Predator

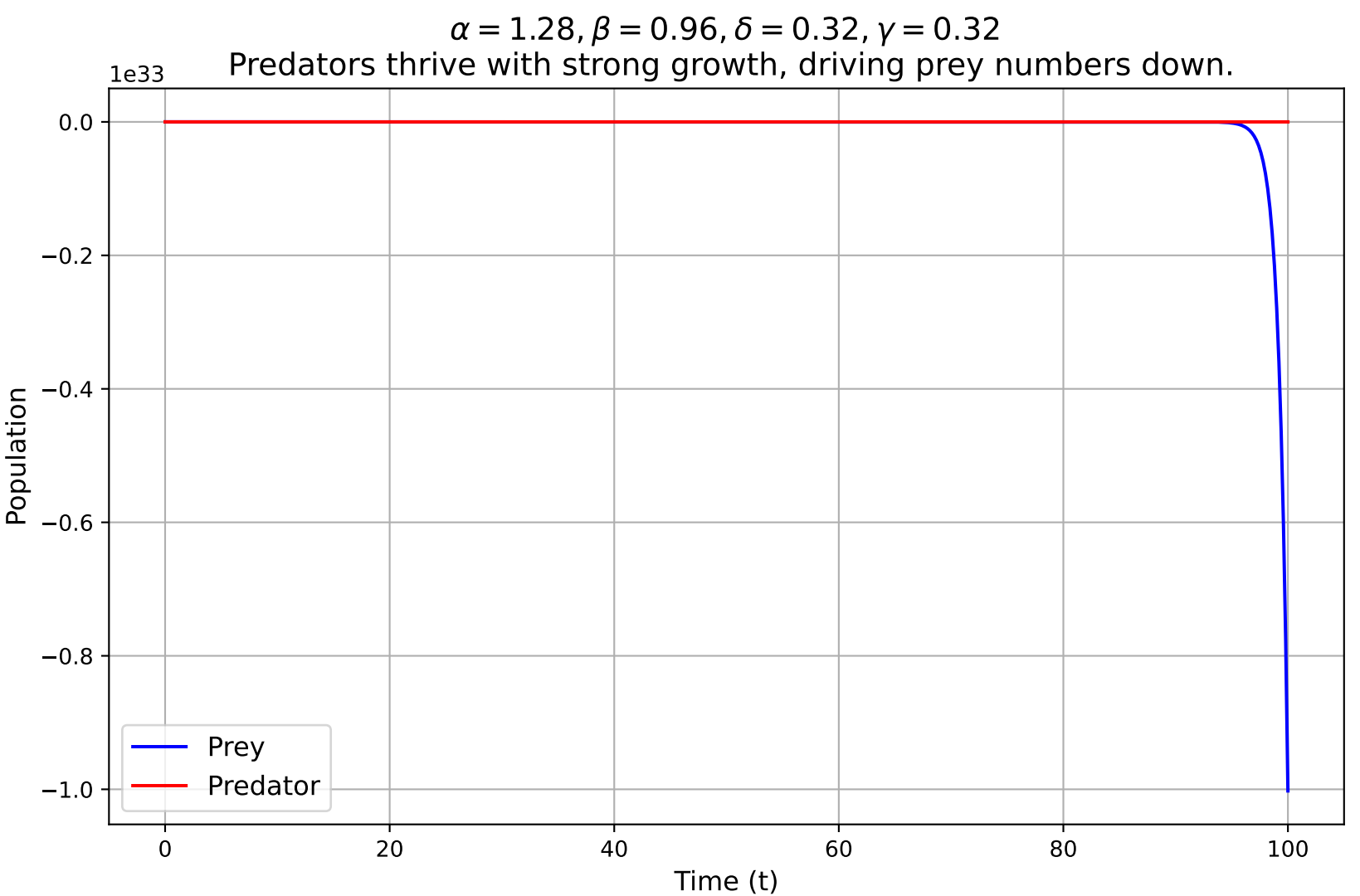

$\alpha = 1.52, \beta = 0.52, \delta = 0.33, \gamma = 0.43$
Stable oscillations as prey grows and predators recover.
1e45
0.0
−0.5
−1.0
−1.5
−2.0
Population
0
20
40
60
80
100
Time (t)
Prey
Predator

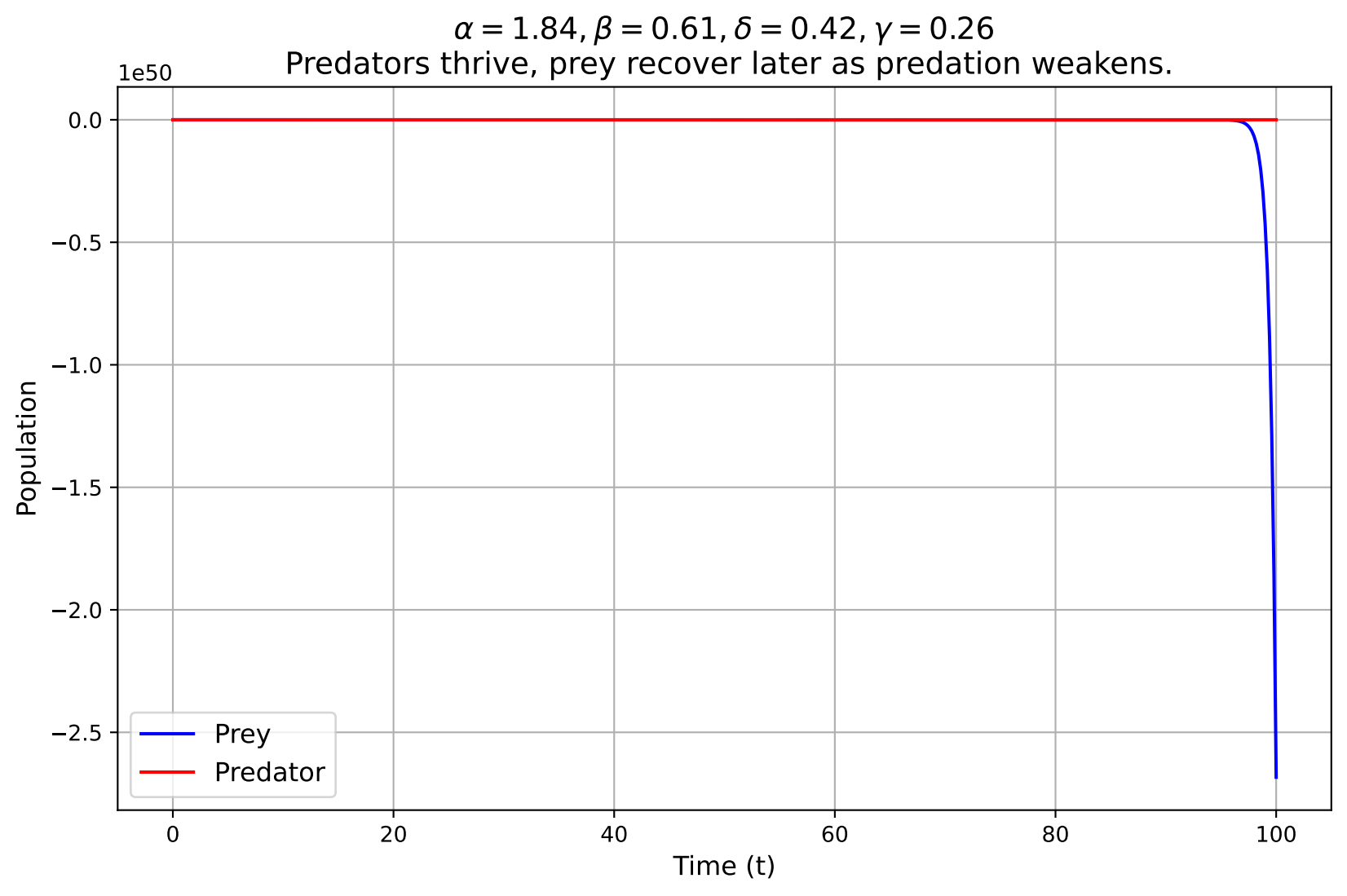

$\alpha = 0.55, \beta = 0.86, \delta = 0.26, \gamma = 0.91$
High predation, weak prey growth. Predators crash after initial rise.
Prey
Predator
Population
Time (t)
0
100
200
300
400
500
600
700
0
20
40
60
80
100

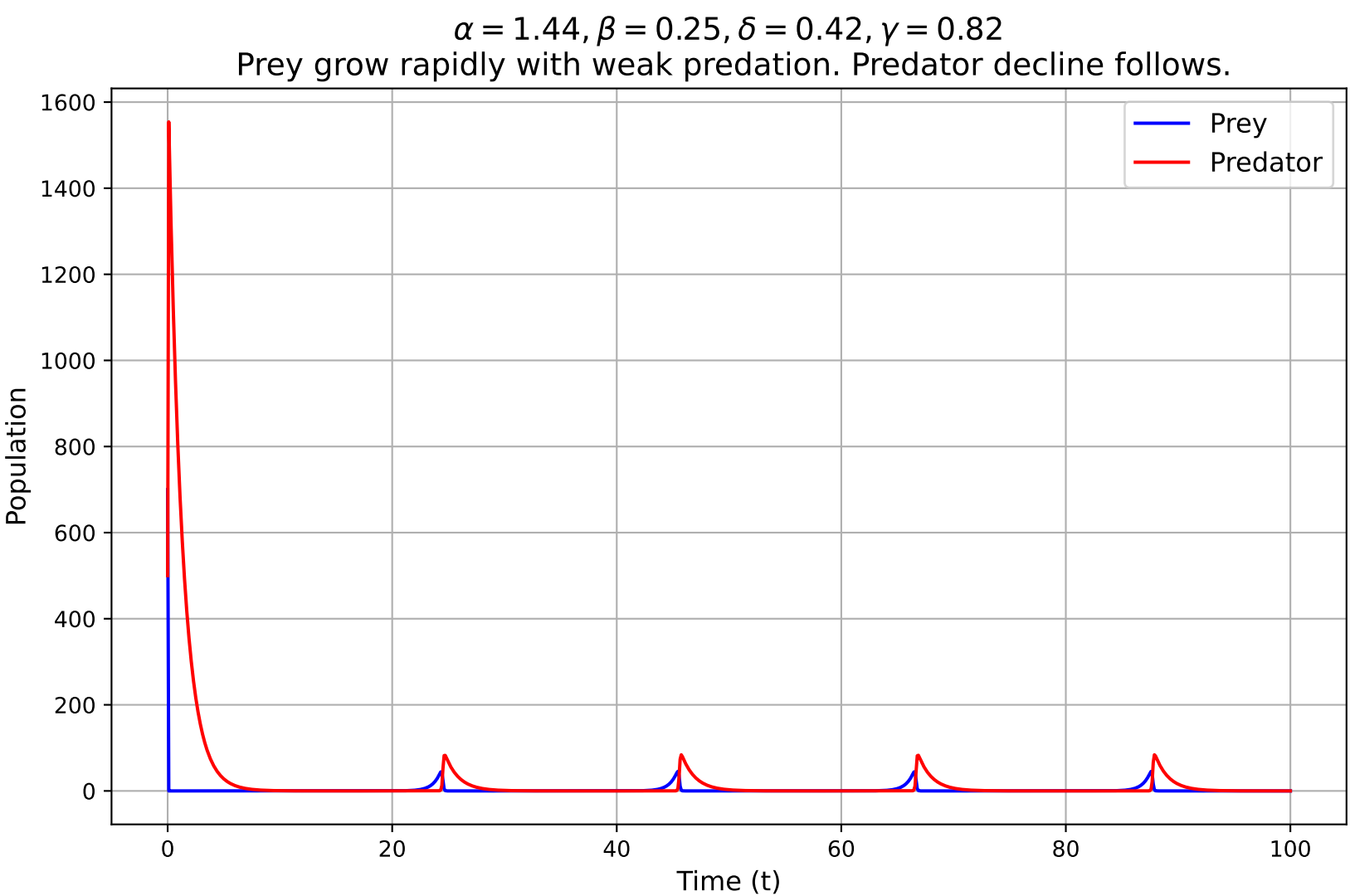

$\alpha = 1.11, \beta = 0.99, \delta = 0.29, \gamma = 0.94$
Extreme swings, predators boom and crash after depleting prey.
Prey
Predator
Population
Time (t)
0
100
200
300
400
500
600
700
0
20
40
60
80
100

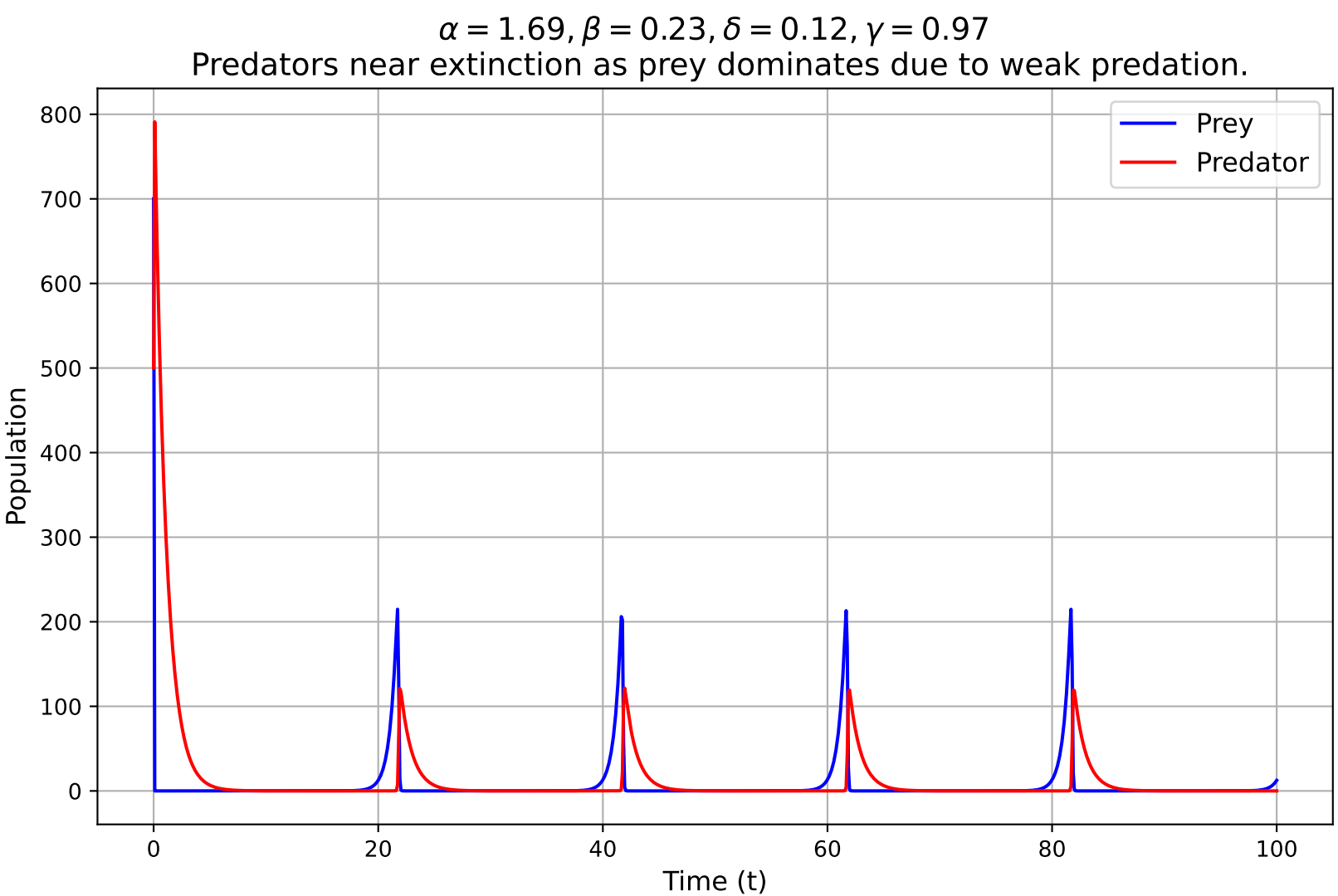

$\alpha = 1.05, \beta = 0.84, \delta = 0.05, \gamma = 0.78$
Predators struggle despite high predation. Prey dominate over time.
1e29
0.0
−0.5
−1.0
−1.5
−2.0
−2.5
−3.0
Population
0
20
40
60
80
100
Time (t)
Prey
Predator


$\alpha = 1.07, \beta = 0.6, \delta = 0.32, \gamma = 0.79$
Balanced oscillations as prey and predator populations stabilize.
1e31
0.0
−0.5
−1.0
−1.5
−2.0
−2.5
−3.0
−3.5
Population
Prey
Predator
0
20
40
60
80
100
Time (t)


$\alpha = 1.28, \beta = 0.96, \delta = 0.32, \gamma = 0.32$
Predators thrive with strong growth, driving prey numbers down.
1e33
0.0
−0.2
−0.4
−0.6
−0.8
−1.0
Population
0
20
40
60
80
100
Time (t)
Prey
Predator


$\alpha = 1.84, \beta = 0.61, \delta = 0.42, \gamma = 0.26$
Predators thrive, prey recover later as predation weakens.
1e50
0.0
−0.5
−1.0
−1.5
−2.0
−2.5
Population
Prey
Predator
0
20
40
60
80
100
Time (t)


$\alpha = 1.44, \beta = 0.25, \delta = 0.42, \gamma = 0.82$
Prey grow rapidly with weak predation. Predator decline follows.
Prey
Predator
Population
Time (t)
0
200
400
600
800
1000
1200
1400
1600
0
20
40
60
80
100


$\alpha = 1.69, \beta = 0.23, \delta = 0.12, \gamma = 0.97$
Predators near extinction as prey dominates due to weak predation.
Prey
Predator
Population
Time (t)
0
100
200
300
400
500
600
700
800
0
20
40
60
80
100