

$$\mathbf{K}=200, \lambda=1, \mu=0.5, \beta_{\mathbf{A}}=, \beta_{\mathbf{B}}=1\text{e-}04, \sigma_{\mathbf{A}}=0, \sigma_{\mathbf{B}}=0, \sigma_{\mathbf{AB}}=0, \sigma_{\mathbf{BA}}=, v_{\mathbf{A}}=0.01, v_{\mathbf{B}}=0.01$$

infection status

N00

N10

# N20

# N01

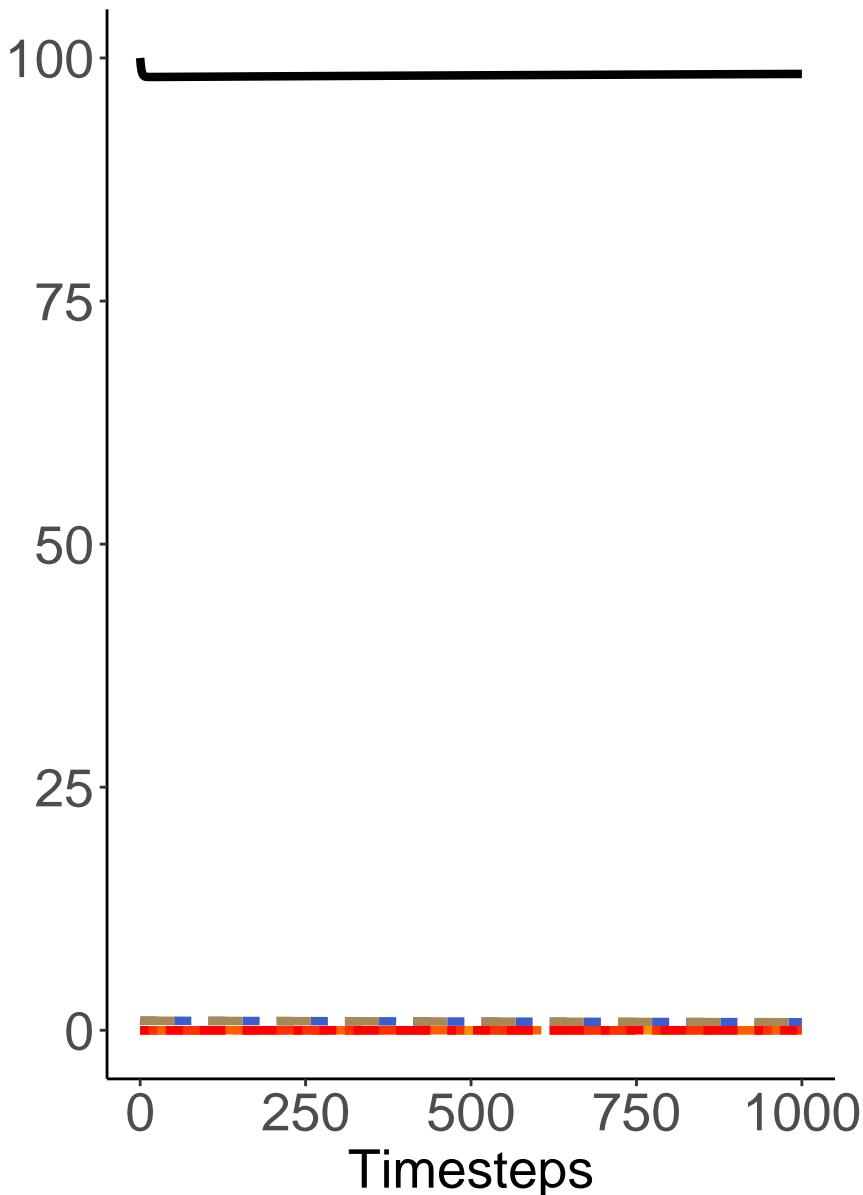
N11

N21

N02

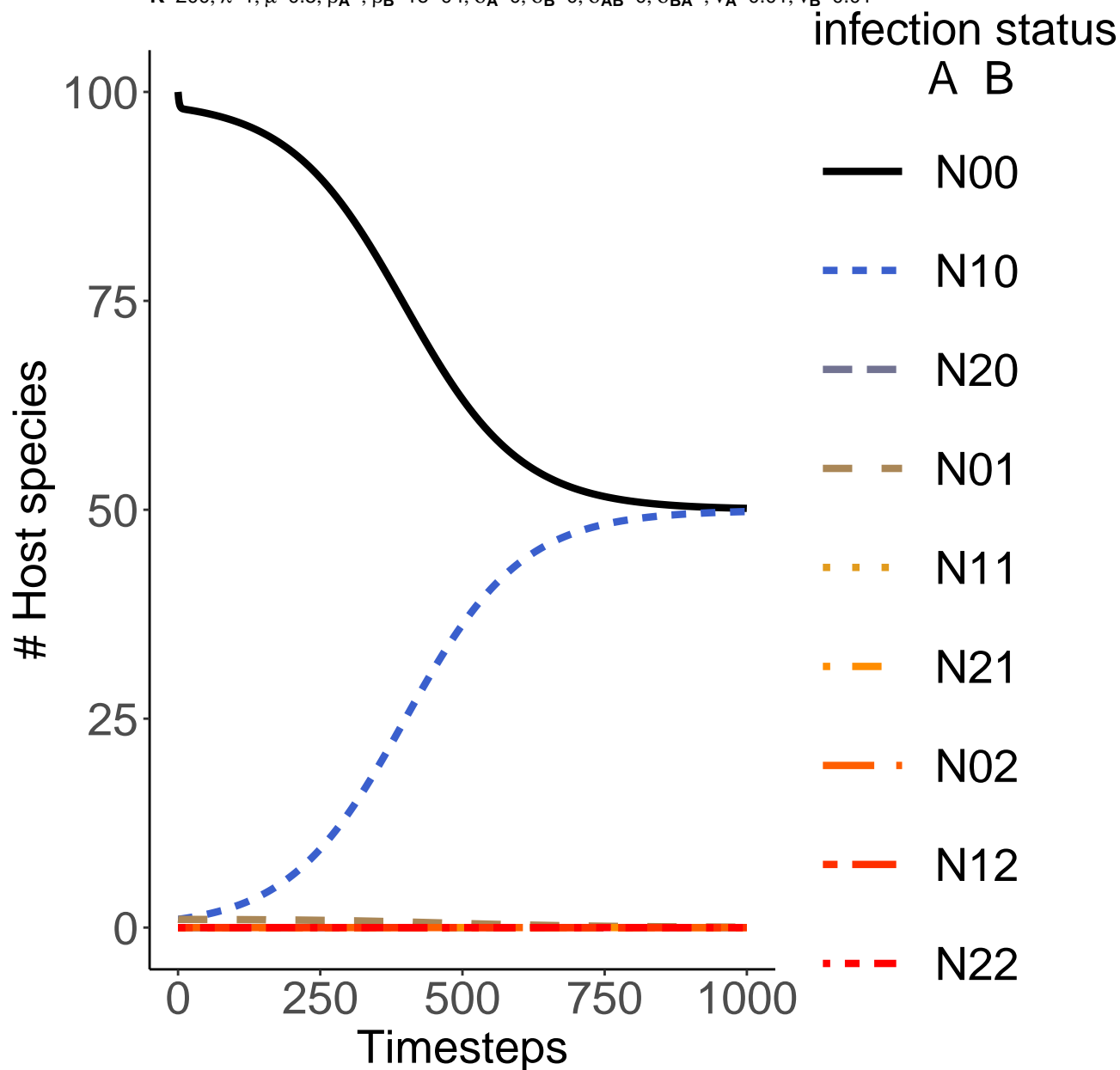
N12

N22



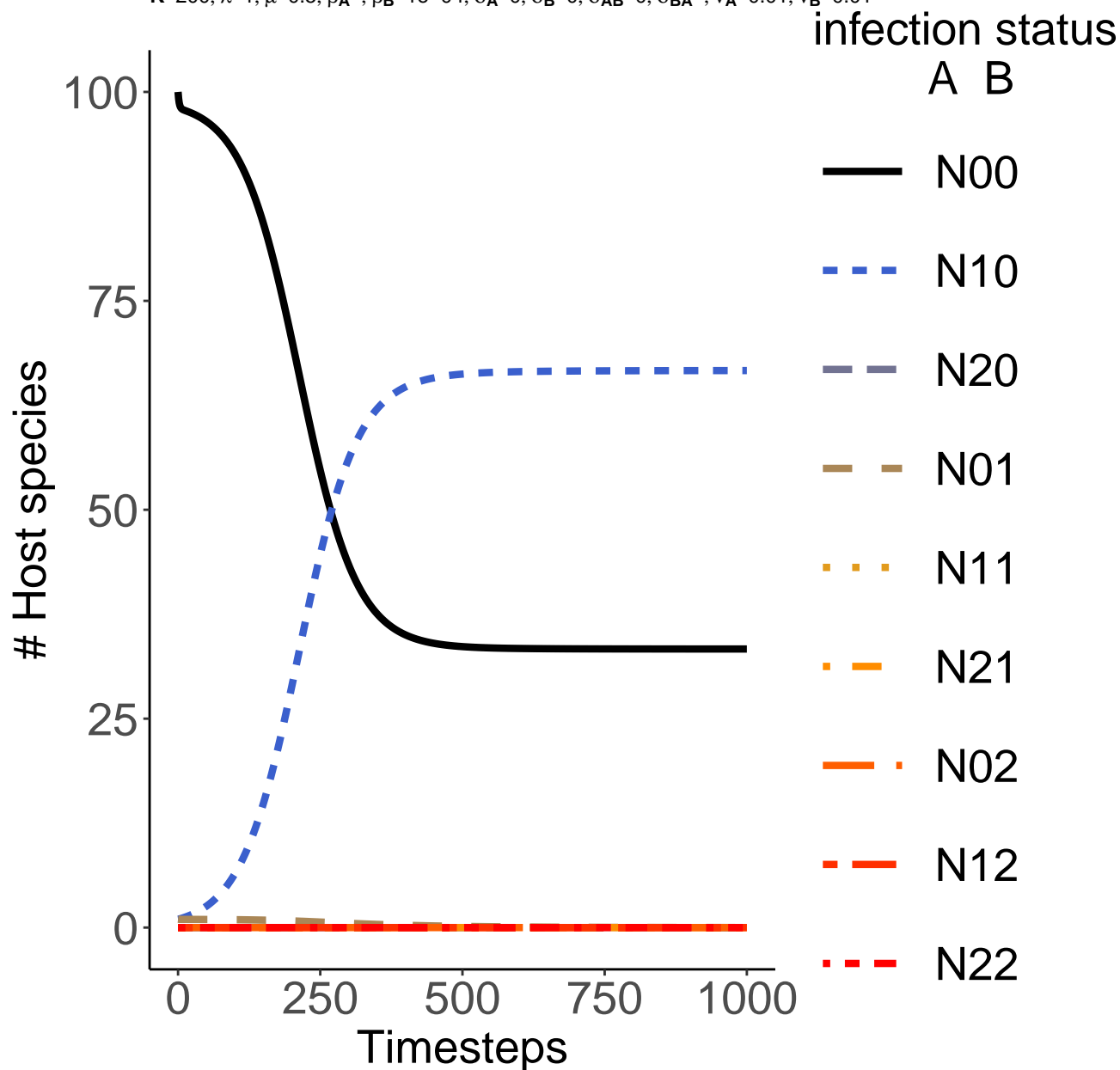
# Number of individuals carrying parasites over time

$K=200$ ,  $\lambda=1$ ,  $\mu=0.5$ ,  $\beta_A=$ ,  $\beta_B=1e-04$ ,  $\sigma_A=0$ ,  $\sigma_B=0$ ,  $\sigma_{AB}=0$ ,  $\sigma_{BA}=$ ,  $\nu_A=0.01$ ,  $\nu_B=0.01$



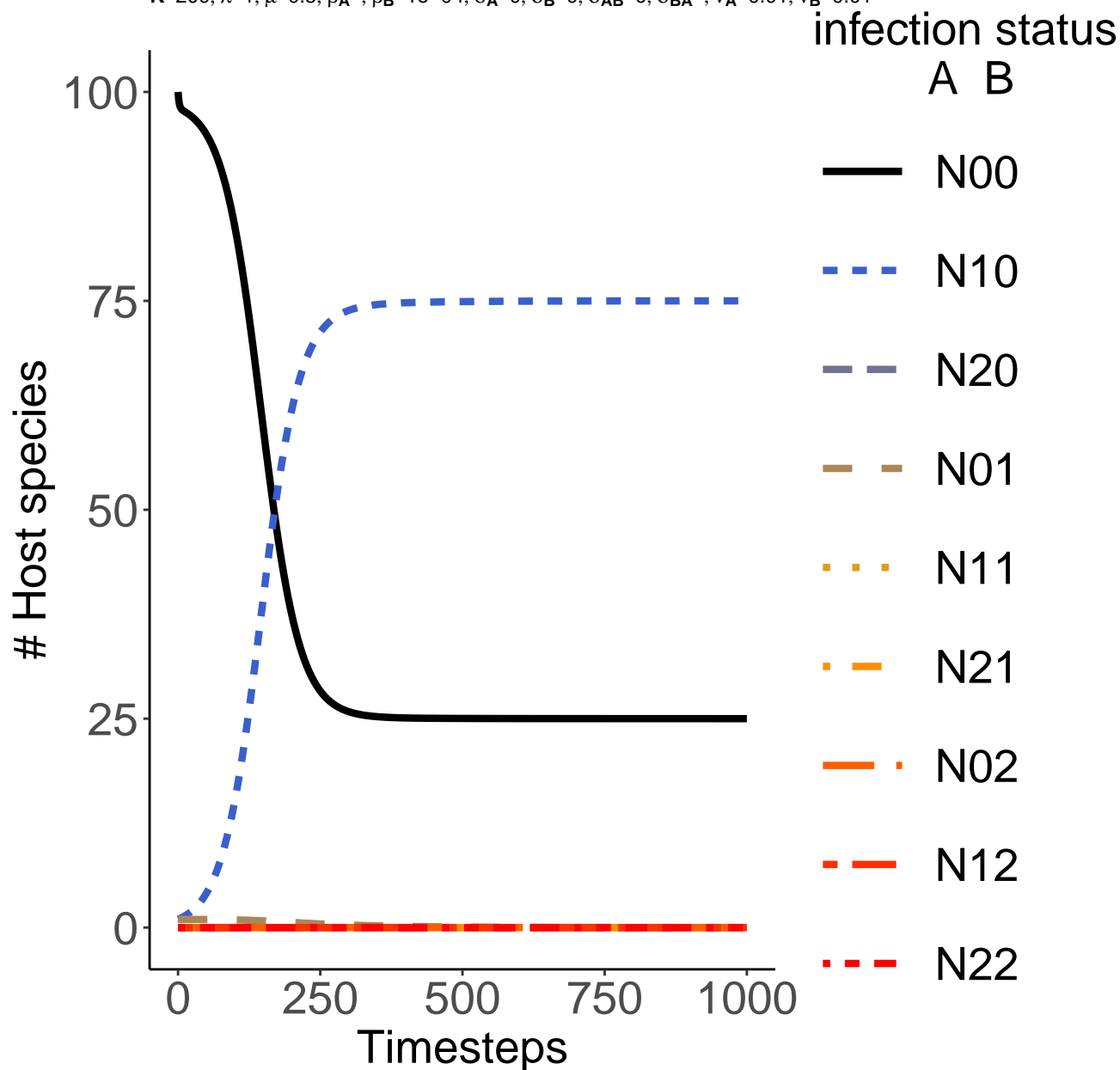
# Number of individuals carrying parasites over time

$K=200$ ,  $\lambda=1$ ,  $\mu=0.5$ ,  $\beta_A=$ ,  $\beta_B=1e-04$ ,  $\sigma_A=0$ ,  $\sigma_B=0$ ,  $\sigma_{AB}=0$ ,  $\sigma_{BA}=$ ,  $\nu_A=0.01$ ,  $\nu_B=0.01$



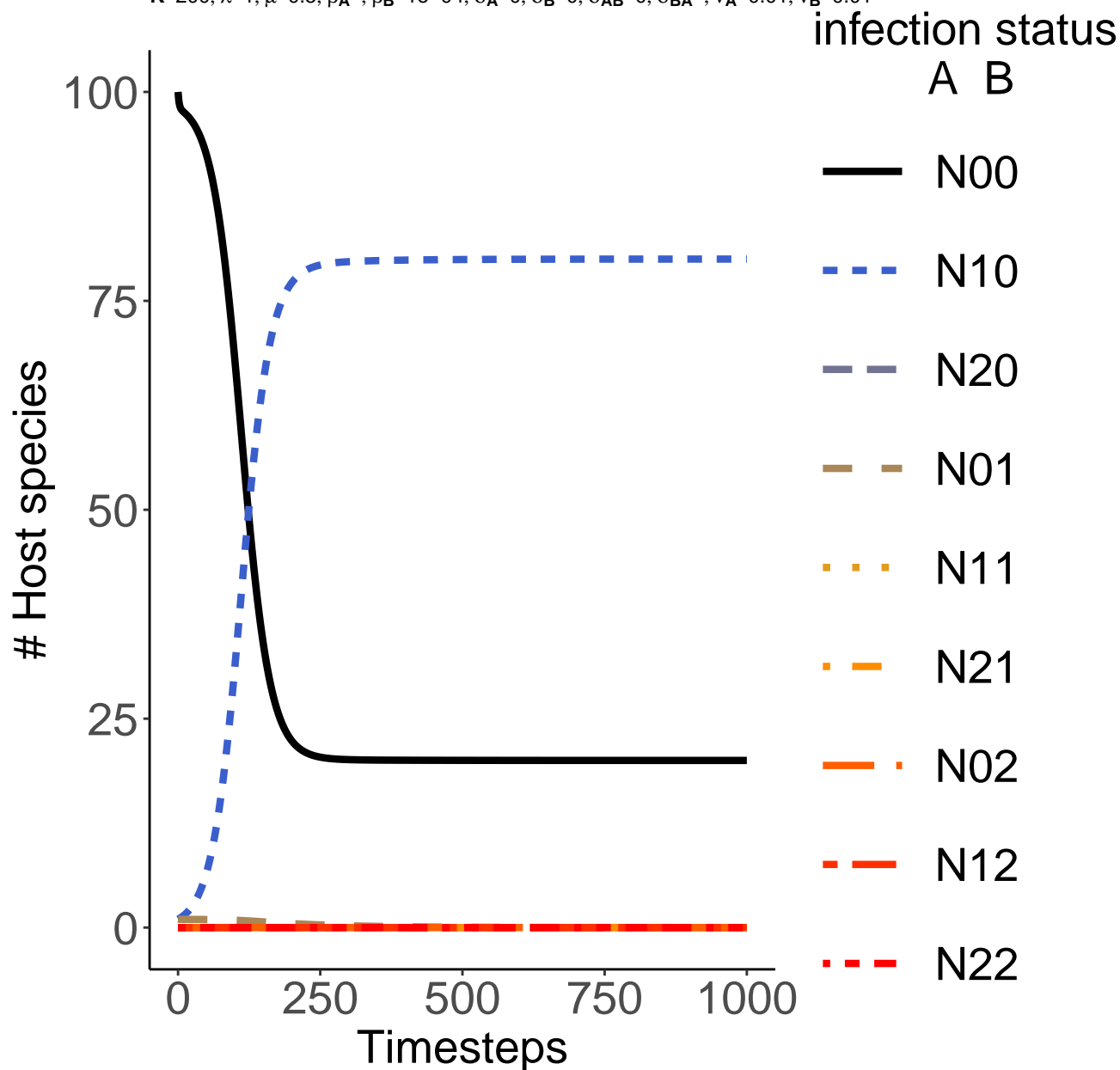
# Number of individuals carrying parasites over time

$K=200$ ,  $\lambda=1$ ,  $\mu=0.5$ ,  $\beta_A=$ ,  $\beta_B=1e-04$ ,  $\sigma_A=0$ ,  $\sigma_B=0$ ,  $\sigma_{AB}=0$ ,  $\sigma_{BA}=$ ,  $v_A=0.01$ ,  $v_B=0.01$



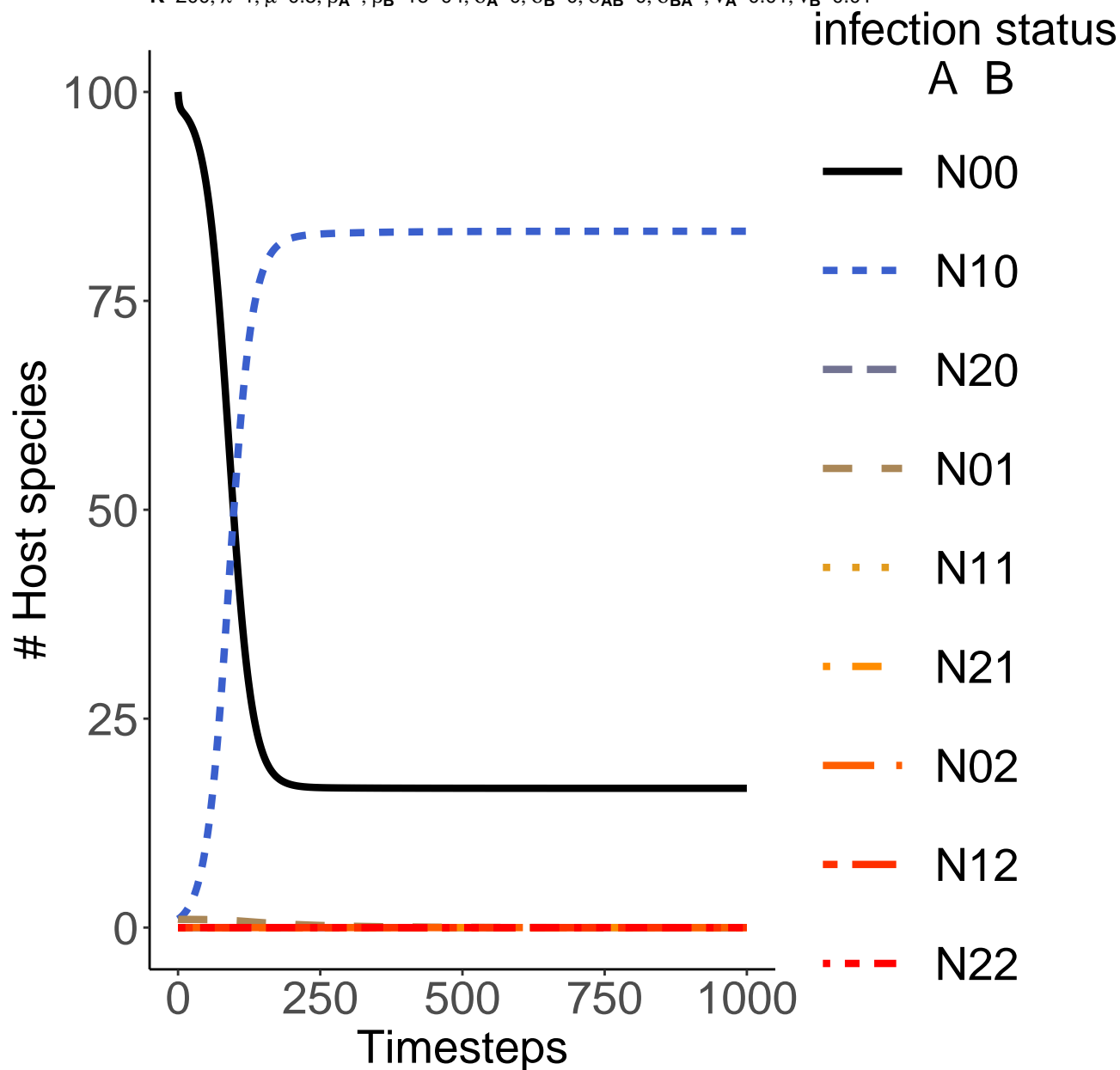
# Number of individuals carrying parasites over time

$K=200$ ,  $\lambda=1$ ,  $\mu=0.5$ ,  $\beta_A=$ ,  $\beta_B=1e-04$ ,  $\sigma_A=0$ ,  $\sigma_B=0$ ,  $\sigma_{AB}=0$ ,  $\sigma_{BA}=$ ,  $\nu_A=0.01$ ,  $\nu_B=0.01$



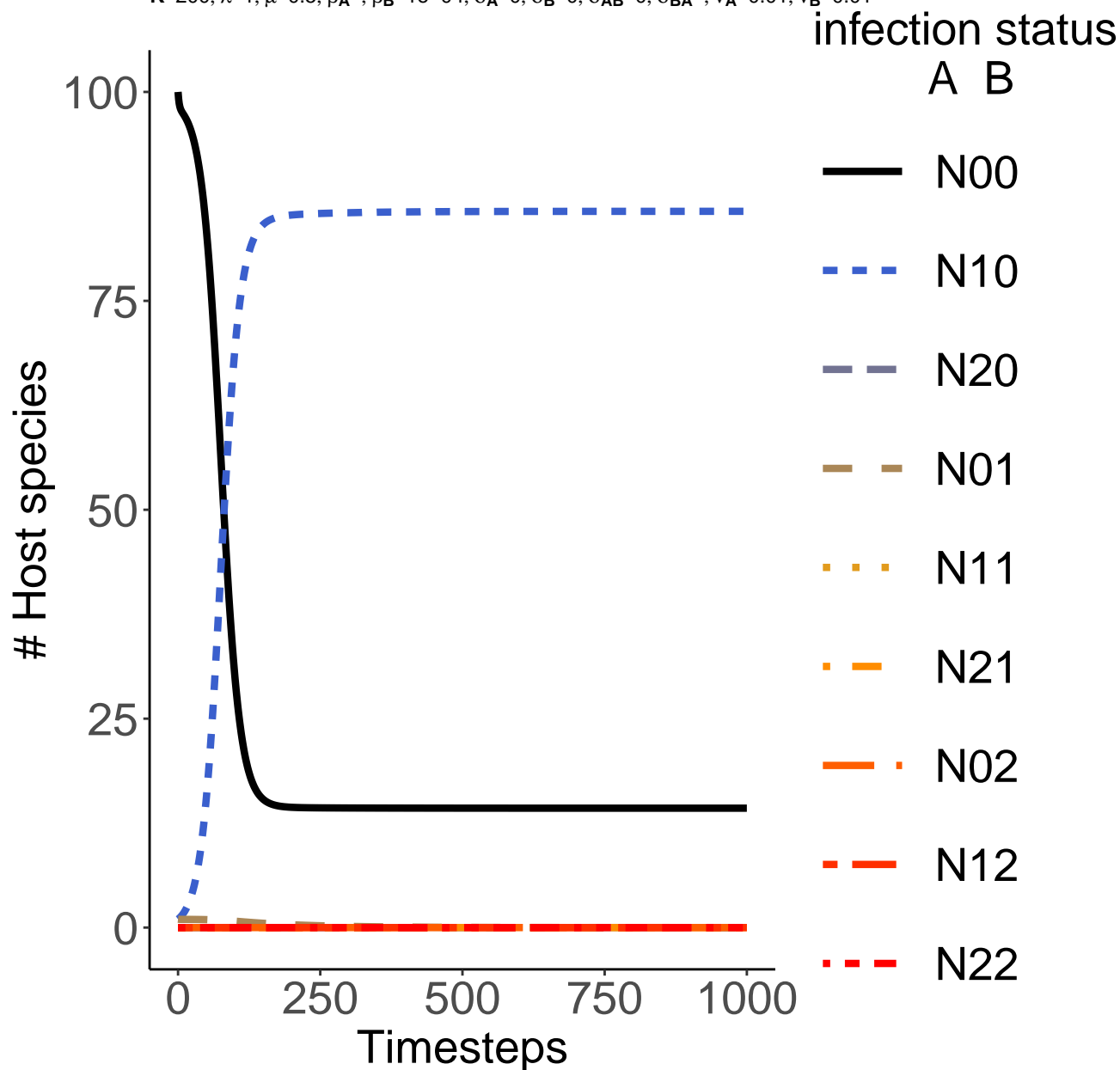
# Number of individuals carrying parasites over time

$K=200$ ,  $\lambda=1$ ,  $\mu=0.5$ ,  $\beta_A=$ ,  $\beta_B=1e-04$ ,  $\sigma_A=0$ ,  $\sigma_B=0$ ,  $\sigma_{AB}=0$ ,  $\sigma_{BA}=$ ,  $\nu_A=0.01$ ,  $\nu_B=0.01$



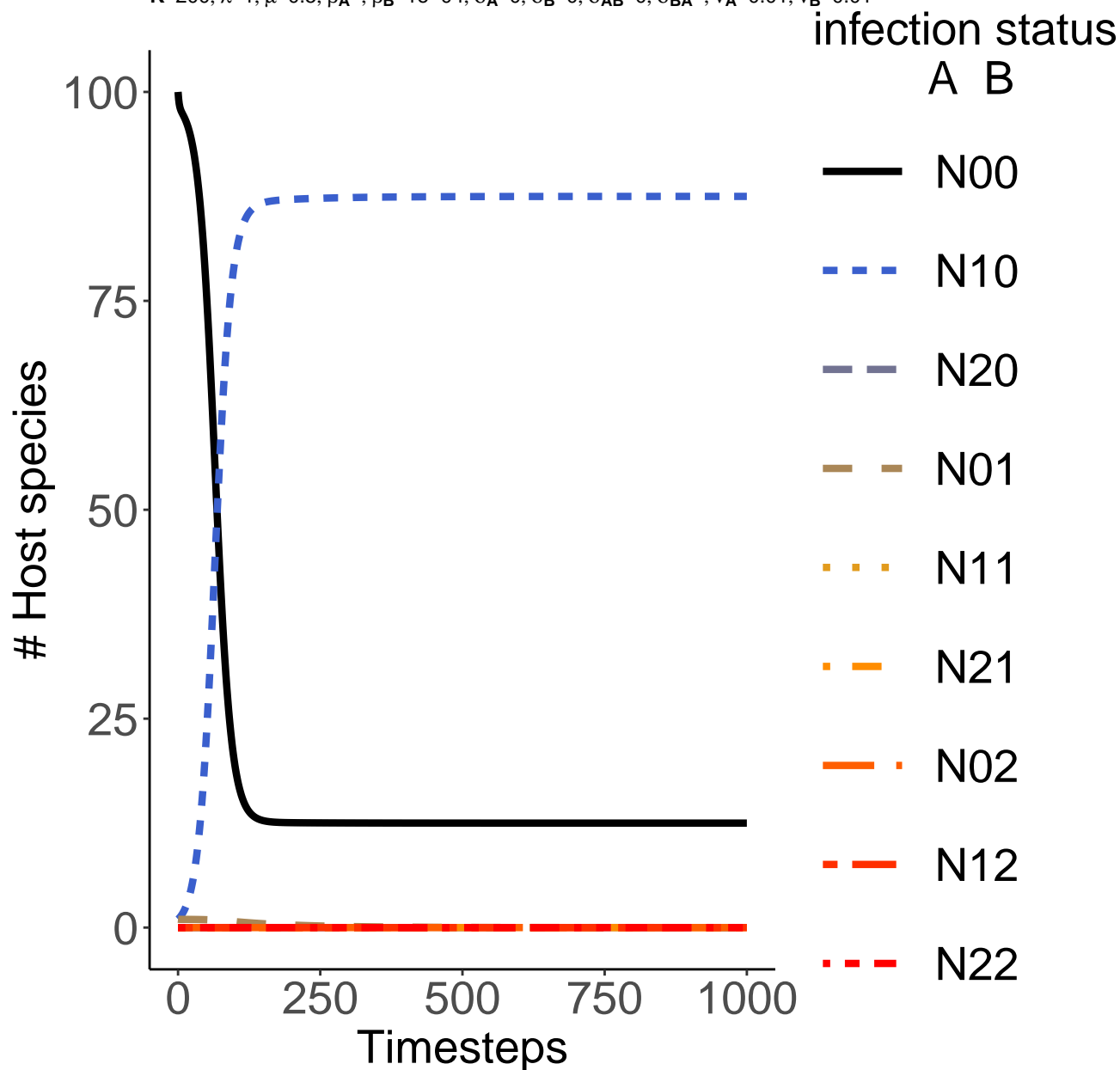
# Number of individuals carrying parasites over time

$K=200$ ,  $\lambda=1$ ,  $\mu=0.5$ ,  $\beta_A=$ ,  $\beta_B=1e-04$ ,  $\sigma_A=0$ ,  $\sigma_B=0$ ,  $\sigma_{AB}=0$ ,  $\sigma_{BA}=$ ,  $v_A=0.01$ ,  $v_B=0.01$



# Number of individuals carrying parasites over time

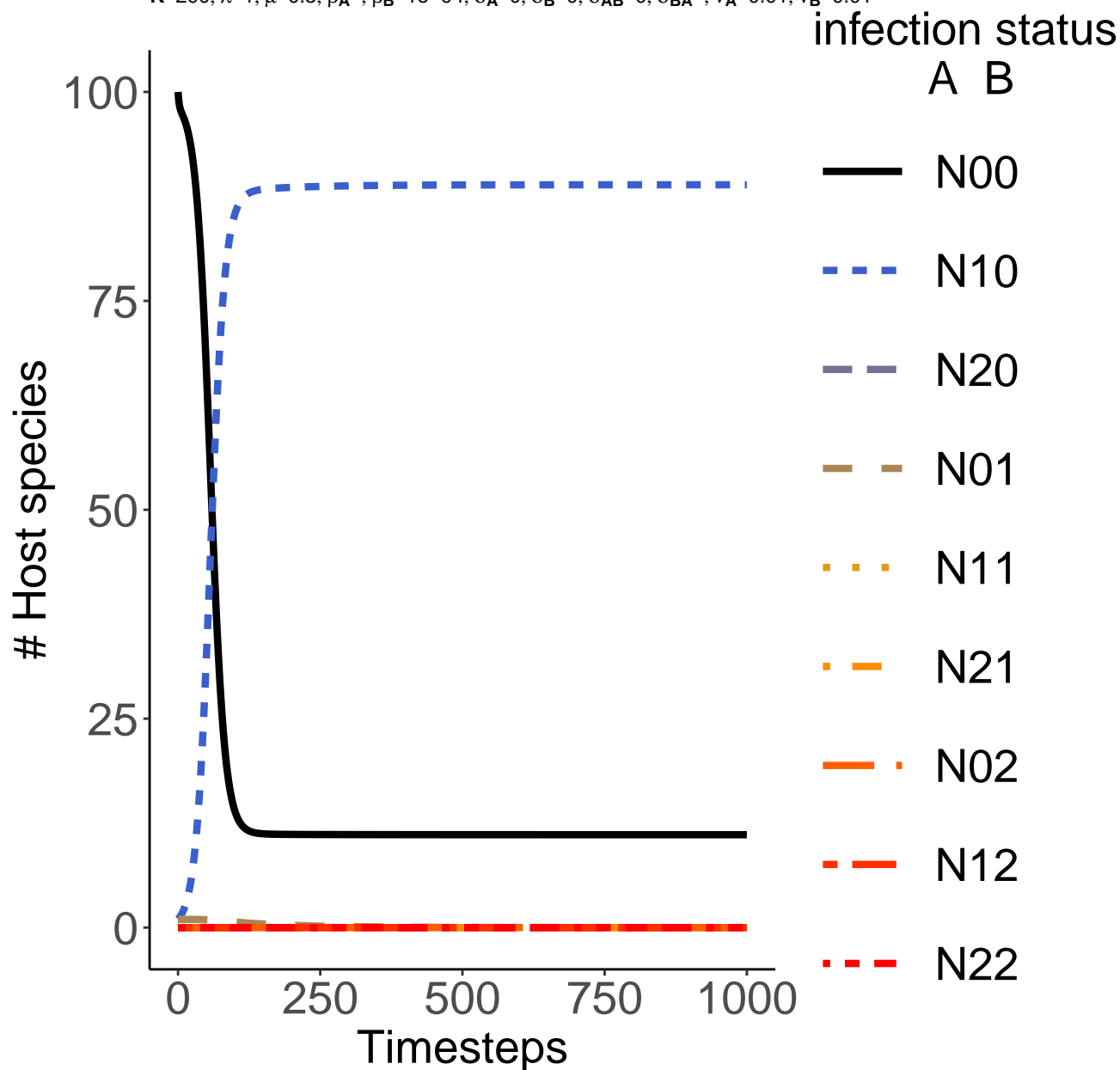
$K=200$ ,  $\lambda=1$ ,  $\mu=0.5$ ,  $\beta_A=$ ,  $\beta_B=1e-04$ ,  $\sigma_A=0$ ,  $\sigma_B=0$ ,  $\sigma_{AB}=0$ ,  $\sigma_{BA}=$ ,  $v_A=0.01$ ,  $v_B=0.01$





# Number of individuals carrying parasites over time

$K=200$ ,  $\lambda=1$ ,  $\mu=0.5$ ,  $\beta_A=$ ,  $\beta_B=1e-04$ ,  $\sigma_A=0$ ,  $\sigma_B=0$ ,  $\sigma_{AB}=0$ ,  $\sigma_{BA}=$ ,  $v_A=0.01$ ,  $v_B=0.01$



# Number of individuals carrying parasites over time

$K=200$ ,  $\lambda=1$ ,  $\mu=0.5$ ,  $\beta_A=$ ,  $\beta_B=1e-04$ ,  $\sigma_A=0$ ,  $\sigma_B=0$ ,  $\sigma_{AB}=0$ ,  $\sigma_{BA}=$ ,  $v_A=0.01$ ,  $v_B=0.01$

